



# Missouri Department of Natural Resources

## **Biological Assessment and Habitat Study Report**

### **North Fabius River Marion, Lewis, Clark, Knox, Scotland, and Schuyler Counties**

**September 2005 – April 2006**

Prepared for:

Missouri Department of Natural Resources  
Division of Environmental Quality  
Water Protection Program  
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## **1.0 Introduction**

At the request of the Water Protection Program (**WPP**), the Environmental Services Program's (**ESP**) Water Quality Monitoring Section (**WQMS**) conducted a biological and habitat assessment of the North Fabius River. The North Fabius River flows through a rural watershed in Schuyler, Scotland, Knox, Clark, Lewis, and Marion Counties in northeast Missouri.

On the 2002 303(d) list, the entire 82-mile class P section of the North Fabius River was listed as impaired for sediment pollution from agriculture non-point sources (**NPS**). Even though the 303(d) list does not include habitat problems as impairment, much of the North Fabius River has poor habitat due to poor riparian zones, steep and bare banks, and extensive channelization.

### **1.1 Purpose**

The purpose of this study was to determine if the North Fabius macroinvertebrate community and/or stream habitat were impaired and, if so, determine the possible causes.

### **1.2 Objectives**

- Determine the habitat characteristics of the North Fabius River.
- Define the water quality characteristics of the North Fabius River.
- Determine if the macroinvertebrate community of the North Fabius River is impaired.

### **1.3 Tasks**

- Conduct a habitat assessment of the North Fabius River.
- Conduct a water quality assessment of the North Fabius River.
- Conduct a biological assessment of the macroinvertebrate community of the North Fabius River.

### **1.4 Null Hypotheses**

- Macroinvertebrate assemblages are similar among North Fabius stream segments.
- Habitat quality is similar among North Fabius stream segments.
- Macroinvertebrate assemblages are similar between North Fabius and biocriteria reference streams.
- Habitat quality is similar between North Fabius and suitable BIOREF streams.

## **2.0 Study Area**

The North Fabius River originates south of Moulton, Iowa just across the Missouri/Iowa state line in southeast Iowa. It flows southeast through its watershed of rural pasture and cropland (Table 2) until its confluence with the South Fabius in Marion County where it becomes the Fabius River approximately three miles from its confluence with the Mississippi River.

According to Chapter 7 of the State of Missouri Water Quality Standards (10 CSR 20-7.031), the 82-mile segment from sec. 26, T. 67 N., R. 14 W. to its confluence with the South Fabius at sec. 24, T. 59 N., R. 6 W. is designated class “P”. Beneficial use designations are for “irrigation, livestock and wildlife watering, protection of warm water aquatic life and human health—fish consumption, secondary contact recreation, and drinking water supply”.

North Fabius and reference streams (**BIOREF**) South Fabius River and Little Fox River sampled during this study are located within the Plains/MS Tributaries between Des Moines and MO Rivers Ecological Drainage Unit (**EDU**). An EDU is a region in which biological communities and habitat conditions can be expected to be similar. See Appendix A for a map of EDUs and the 14-digit Hydrologic Units (**HU**) that contain the sampling reaches for North Fabius, South Fabius, and Little Fox. See Table 2 for a comparison of land use for the EDU and the 14-digit HUs.

## **2.1 Water Quality Concerns**

The towns of Memphis and Monticello, along with other permitted municipal wastewater treatment facilities (**WWTF**) on tributaries of the North Fabius River, contribute point source discharge to North Fabius River. However, the major concern regarding impairment to the North Fabius is from non-point agricultural sources and channelization.

Agricultural activity dominates the landscape in northern Missouri, including the North Fabius basin. This includes row crops and cattle pasture. Erosion of agricultural land is a major cause of sediment deposition in northern Missouri streams. Oftentimes row crops are planted to the edge of stream banks, thus eliminating stabilizing riparian vegetation. This causes the banks to become unstable, steep, and without shade resulting in higher summer water temperatures and loss of habitat. Channelization of larger northern Missouri streams, such as that on the North Fabius, are cause for loss of channel structure and subsequent deterioration and loss of stream habitats.

## **2.2 North Fabius Site Descriptions**

Sixteen sampling locations were selected for this study. Because of high water throughout the spring sample season the most downstream station, station #1, was only sampled in the fall. Sample stations were located in Marion, Lewis, Clark, Knox, Scotland, and Schuyler Counties (see map Appendix A).

The average width and discharge measurements in cubic feet per second (**cfs**) during both survey periods are given for each North Fabius sampling station in Table 1.

Most of the sample stations, particularly stations 4-16, are typical of the northern portion of the Plains/MS Tributaries between Des Moines and MO Rivers EDU with steep banks, predominantly sand bottom with some fine silt, and little if any rock or gravel substrate. Stations 1-3 have some rock substrate and limited riffle area as well as silt and sand substrate. The stream appears to be heavily channelized from stations 7-16 (see Table 4 and Figure 1).

North Fabius Station #1 (SE  $\frac{1}{4}$  sec. 2, T. 59 N., R. 6 W.) is located approximately 0.25 mile upstream of the Old Highway 61 crossing in Marion County. Geographic coordinates at the downstream terminus of this station are Lat. 39.93649°, Long. -91.52484°. This station has one short riffle at the downstream end. Upstream of the riffle, there is a wide, deep pool with a predominantly sand and silt bottom.

North Fabius Station #2 (NE  $\frac{1}{4}$  sec. 19, T. 60 N., R. 7 W.) is located just upstream of the County Road (**CR**) 588 crossing and west of Highway Z in Lewis County. Geographic coordinates at the downstream terminus of this station are Lat. 39.98516°, Long. -91.60300°. There is one short riffle at the downstream end of the site with a large wide pool just upstream. Along the left descending bank is a small limestone bluff and the substrate is predominantly sand with some flat cobble and small amounts of silt along both banks.

North Fabius Station #3 (NE  $\frac{1}{4}$  sec. 12, T. 60 N., R. 7 W.) is located just downstream of the Napa Street crossing west of Dover, Missouri in Lewis County. Geographic coordinates at the upstream terminus of this station are Lat. 40.01921°, Long. -91.62223°. There is a substantial riffle series at the downstream end of this station and all four habitats were sampled. Between the riffle series and the road crossing is a long, large pool with a predominantly sand substrate with silt and large rock bottom and limestone bluff along the left descending bank.

North Fabius Station #4 (NE  $\frac{1}{4}$  sec. 27, T. 61 N., R. 7 W.) is located just upstream of CR 532 and west of Highway Z in Lewis County. Geographic coordinates at the upstream terminus of this station are Lat. 40.06237°, Long. -91.66073°.

North Fabius Station #5 (SE  $\frac{1}{4}$  sec. 16, T. 61 N., R. 7 W.) is located just downstream of the CR 513 crossing just off CR 528 in Lewis County. Geographic coordinates at the upstream terminus of this station are Lat. 40.08439°, Long. -91.67707°.

North Fabius Station #6 (SE  $\frac{1}{4}$  sec. 6, T. 61 N., R. 17 W.) is located just upstream of the Highway 16 crossing at Monticello in Lewis County. Geographic coordinates at the downstream terminus are Lat. 40.10860°, Long. -91.71402°.

North Fabius Station #7 (sec. line 15/16, T. 62 N., R. 8 W.) is located at the lower end of the Missouri Department of Conservation (**MDC**) Deer Ridge Conservation Area in Lewis County. Geographic coordinates at the upstream terminus are Lat. 40.17573°, Long. -91.78841°.

North Fabius Station #8 (SE ¼ sec. 15, T. 63 N., R. 8 W.) is located just upstream of the CR 356 crossing at the upper end of MDC Deer Ridge Conservation Area in Lewis County. Geographic coordinates at the downstream terminus are Lat. 40.21374°, Long. -91.82580°.

North Fabius Station #9 (sec. line 16/17, T. 63 N., R. 9 W.) is located just upstream of the CR 326 crossing north of the end of the Highway K and Highway E junction and west of Williamstown in Clark County. Geographic coordinates at the downstream terminus are Lat. 40.26542°, Long. -91.91351°.

North Fabius Station #10 (SW ¼ sec. 2, T. 63 N., R. 10 W.) is located just upstream of the junction of CRs 85, 86, and 91 and north of Colony in Knox County. Geographic coordinates at the downstream terminus are Lat. 40.28675°, Long. -91.97852°.

North Fabius Station #11 (SW ¼ sec. 12, T. 64 N., R. 11 W.) is located just upstream of the CR 120 crossing and west of Gorin in Scotland County. Geographic coordinates at the downstream terminus are Lat. 40.36259°, Long. -92.07076°.

North Fabius Station #12 (sec. 28, T. 65 N., R. 11 W.) is located just downstream of the Highway MM crossing and southeast of Memphis in Scotland County. Geographic coordinates at the upstream terminus are Lat. 40.41307°, Long. -92.12378°.

North Fabius Station #13 (sec. 12, T. 65 N., R. 12 W.) is located just upstream of the Highway 136 crossing and west of Memphis in Scotland County. Geographic coordinates at the downstream terminus are Lat. 40.45692°, Long. -92.19076°.

North Fabius Station #14 (SW ¼ sec. 32, T. 66 N., R. 12 W.) is located just downstream of the Highway B crossing at Crawford in Scotland County. Geographic coordinates at the upstream terminus are Lat. 40.48089°, Long. -92.27399°.

North Fabius Station #15 (NE ¼ sec. 17, T. 66 N., R. 13 W.) is located just upstream of the Highway N crossing and north of Downing in Schuyler County. Geographic coordinates at the downstream terminus are Lat. 40.53304°, Long. -92.37447°.

North Fabius Station #16 (SW ¼ sec. 26, T. 67 N., R. 14 W.) is located just downstream of the Highway C crossing and northeast of Lancaster in Schuyler County. During the fall sampling season, there was a pair of beaver ponds extending approximately ¼ mile downstream of the bridge crossing. Sampling was conducted just below these beaver ponds. Geographic coordinates at the upstream terminus are Lat. 40.57790°, Long. -92.43221°.

### 2.3 Biocriteria Reference Stations

South Fabius River (BIOREF) (SW ¼ sec. 23, T. 59 N., R. 8 W.) is located at MDC Dunn's Ford Access in Marion County. Geographic coordinates at the downstream terminus are Lat. 39.88908°, Long. -91.76057°. This site has considerable amounts of rock substrate similar to Ozark streams and has both riffle and snag habitats with good comparability to the three downstream North Fabius stations. All four habitats were sampled at this location.

Little Fox River (BIOREF) (SE ¼ sec. 24, T. 66 N., R. 9 W.) is located just downstream of the Highway AA crossing and north of Luray in Clark County. Geographic coordinates at the upstream terminus are Lat. 40.50705°, Long. -91.83968°. This site is typical of the upper North Fabius stations 4-16 with a predominantly sand bottom.

See Table 1 for average width and discharge measurements during both survey periods for the two BIOREF stations.

Table 1  
North Fabius Physical Characteristics of the Stations

North Fabius Station #		Fall 2005	Spring 2006
	Ave. Width (feet)	Flow (cfs)	Flow (cfs)
1	146	10.3	-
2	94	8.64	70.8
3	87	13.5	68.6
4	89	8.2	66.6
5	98	8.61	67.3
6	85	12.4	66.1
7	108	10.8	83.2
8	132	19.9	75.4
9	110	13.1	80.4
10	130	9.6	74.3
11	98	7.8	59.4
12	100	5.31	65.6
13	96	3.47	62.6
14	58	1.84	13
15	57	1.63	10.4
16	52	0.45	2.85
South Fabius R.	73	2.03	41.3
Little Fox R.	45	0.49	13.3



### **3.0 Methods**

Sampling at North Fabius and BIOREF stations was conducted on September 13-October 5, 2005 and March 28-April 13, 2006. Sampling was conducted by Brian Nodine, Steve Humphrey, Mike Irwin, and Carl Wakefield of ESP. Sampling consisted of macroinvertebrate collection and water quality sampling. Habitat assessments and quantitative channel measurements on North Fabius River, South Fabius River, and Little Fox River were conducted during the fall 2005 sampling season. It was prohibitive to accurately measure width and depth at North Fabius station #1 when the habitat assessment and channel measurements were conducted because much of the water depths significantly exceeded wadeable levels.

#### **3.1 Habitat**

Sedimentation is only one of several instream habitat problems associated with land use. Instream habitat can be directly measured yet the causes of habitat degradation can range from local to watershed scale sources. For this study, habitat measurements were collected at the watershed, reach, and local scales to facilitate assessment of the causes of poor habitat conditions.

##### **3.1.1 Land Use**

Land cover data were derived from the Thematic Mapper satellite data from 2001-2004, and interpreted by the Missouri Resource Assessment Partnership (**MoRAP**). See Section 2.0 for land use information.

##### **3.1.2 Habitat Assessment**

A standardized habitat procedure for Glide/Pool stream types was followed in the Habitat Assessment Project Procedure (**SHAPP**) (MDNR 2003b).

##### **3.1.3 Sinuosity**

Sinuosity was used as a rough indicator of the amount of channelization that has occurred. Sinuosity was measured using the National Hydrography Dataset (NHD) of the stream segment and is represented as a ratio of the actual stream segment length compared to the straight-line distance between two points. Measurement points were approximately two miles apart with the sampling reach at the center.

##### **3.1.4 Instream Width and Depth Measurements**

It is typical for streams in northern Missouri to suffer from a lack of instream habitat due to poor land and channelization. These streams trend toward wider channels with shallower water depths and more homogeneous habitat (Haithcoat et al. 2003c). At each sampling station a series of ten bank to bank transects were established. Each transect

was equally spaced within the sampling reach, which was 20x the average width. Measurements taken at each transect included lower bank width (see SHAPP for a definition of lower bank), wetted width, and water depth at  $\frac{1}{4}$ ,  $\frac{1}{2}$ , and  $\frac{3}{4}$  of the distance across the wetted width. To document critical habitat conditions, measurements were collected during the fall low flow period. North Fabius station #1 was only marginally wadeable and accurate width and depth measurements were not taken.

### 3.2 Physicochemical Data Collection and Analysis

During each survey period, *in situ* water quality measurements were collected at all stations for temperature (°C), dissolved oxygen concentration (mg/L), conductivity (µS/cm), and pH. These measurements followed Standard Operating Procedures MDNR-FSS-101 Field Measurement of Water Temperature (MDNR 1993), MDNR-WQMS-103 Sample Collection and Field Analysis for Dissolved Oxygen Using a Membrane Electrode Meter (MDNR 2002b), MDNR-FSS-102 Field Analysis for Specific Conductance (MDNR 2000a), and MDNR-FSS-100 Field Analysis of Water Samples for pH (MDNR 2001a) respectively. Additionally, water samples were collected and analyzed by ESP's Chemical Analysis Section for chloride, total phosphorus, ammonia-N, nitrate + nitrite-N, and total nitrogen. Turbidity (NTU) was analyzed by the WQMS.

Stream discharge in cubic feet per second (**cfs**) was measured during each sampling station using a Marsh-McBirney Flo-Mate Model 2000. Discharge was calculated per the methods in the Standard Operating Procedure MDNR-FSS-113 Flow Measurement in Open Channels (MDNR 2001b).

Physicochemical data were summarized and presented in tabular form for comparison among the sixteen North Fabius stations, between the North Fabius stations and the BIOREF stations, and between sample seasons.

### 3.3 Macroinvertebrate Collection and Analysis

A standardized sample collection procedure was followed as described in the Semi-quantitative Macroinvertebrate Stream Bioassessment Project Procedure (**SMSBPP**) (MDNR 2003a). Three standard habitats, non-flowing water with depositional substrate (**NF**), large woody debris (**SG**), and rootmat (**RM**) at the stream edge, were sampled at all locations. Because of availability, coarse substrate (**CS**) at riffles was sampled at North Fabius station #3 and at the South Fabius BIOREF station.

A standardized sample analysis procedure was followed as described in the SMSBPP. The SMSBPP provides details on the calculation of metrics and scoring of the multi-metric Macroinvertebrate Stream Condition Index (**MSCI**). The following four metrics were used: 1) Taxa Richness (**TR**); 2) total number of taxa in the orders Ephemeroptera, Plecoptera, and Trichoptera (**EPTT**); 3) Biotic Index (**BI**); and 4) Shannon Diversity Index (**SDI**).

Macroinvertebrate data were analyzed in three specific ways. First, North Fabius stations were compared to biological criteria for the Plains/MS Tributaries between Des Moines and MO Rivers EDU as well as compared with concurrent BIOREF station data. Second, a longitudinal comparison between the sixteen North Fabius sites was performed (fifteen sites in the spring). Finally, a comparison was made of North Fabius data between fall and spring sampling seasons. See Tables 8 and 9 for biological criteria for warm water reference streams in the Plains/MS Tributaries between Des Moines and MO Rivers EDU for the fall and spring.

#### 4.0 Quality Assurance/Quality Control (QA/QC)

QA/QC procedures were followed as described in pertinent Standard Operating and Project Procedures.

#### 5.0 Data Results and Analyses

##### 5.1 Land Use

According to MoRAP land cover files (see Table 2), the watershed land use of the North Fabius River is comprised mostly of cropland followed by grassland with some forest. A very small area of the land in the North Fabius drainage is urban, wetland, or open water. The plurality of the Little Fox watershed is grassland followed closely by forest and cropland and the major South Fabius watershed coverage is cropland followed by grassland and forest.

Table 2  
Percent Land Cover

	14-digit HUC	Urban	Cropland	Grassland	Forest	Wetland	Open Water
Plains/MS Tributaries between Des Moines and MO Rivers EDU		3	42	29	19		
North Fabius River							
Sites 1-5	07110002100002	2	49	24	18	3	1
Sites 6-8	07110002100001	1	33	29	26	7	1
Sites 9-11	07110002070004	1	47	31	15	2	0
Sites 12 and 13	07110002030002	2	58	24	9	3	2
Sites 14-16	07110002030003	2	31	48	14	2	0
Reference Streams							
Little Fox	07110001030003	1	29	35	30	3	0
South Fabius River	07110003020003	1	41	32	21	2	0

##### 5.2 Habitat Assessment

Habitat assessment scores were recorded for each sampling station. Results are presented in Table 3. According to the project procedure guidance, the total score from the physical habitat assessment should be at least 75% similar to the total score of the study

site to support a similar biological community. Because the South Fabius was not compared with the North Fabius stations biologically, the Little Fox habitat score was used for the habitat comparison. Five of the North Fabius stations (7, 8, 11, 15, and 16) failed to meet the 75% requirement and two stations (12 and 14) scored on the border of the 75% threshold. It is therefore inferred that based on habitat scores, the eleven sites attaining at least 75% of the BIOREF station should support comparable biological communities. The five that failed, however, cannot be assumed to have adequate habitat to sustain similar biological communities.

**Table 3**  
Habitat Scores (Fall 2005)

<b>BIOREF Streams</b>	<b>Habitat Score</b>	<b>North Fabius Station #</b>	<b>Habitat Score</b>	<b>% of L. Fox BIOREF</b>
Little Fox	99	1	98	99
South Fabius	136	2	108	109
		3	125	93
		4	97	98
		5	95	96
		6	92	93
		7	70	<b>71*</b>
		8	65	<b>66*</b>
		9	81	82
		10	81	82
		11	72	<b>73*</b>
		12	74	75
		13	83	84
		14	74	75
		15	62	<b>63*</b>
		16	72	<b>73*</b>

\* <75%

### **5.3 Sinuosity and Riparian Zone Condition**

Characteristics for each sampling station are listed in Table 4. Sinuosity was calculated for each station by choosing points on the river approximately two miles apart, with the sampling station in the approximate center of the reach. Sinuosity ratios are calculated by comparing the stream distance between two points to the direct spatial distance between the same two points. The higher the sinuosity ratio, the less likely the stream segment is channelized. The sinuosity was 1.24 at the Little Fox and ranged from 1.62 to 2.06 at North Fabius River stations 2-6, indicating a lack of channelization. However, the sinuosity of all ten upstream stations ranged from 1.01 to 1.09, indicating extensive channelization along this substantial length of the stream.

Riparian zone conditions derived from SHAPPs conducted in the fall at North Fabius ranged from poor to very good, but most stations had at least mixed to very good riparian coverage with only three of the 16 sites having overall poor riparian coverage.

Table 4  
Sinuosity and Riparian Zone Condition

Station	Sinuosity*	Likely to be channelized	Riparian Zone Condition
North Fabius			
1	-	-	<b>Poor</b>
2	1.62	No	<b>Poor</b>
3	1.77	No	Good
4	2.06	No	Good
5	1.97	No	Very Good
6	1.62	No	Good
7	<b>1.06</b>	<b>Yes</b>	Mixed*
8	<b>1.08</b>	<b>Yes</b>	Mixed
9	<b>1.04</b>	<b>Yes</b>	Very Good
10	<b>1.07</b>	<b>Yes</b>	Mixed
11	<b>1.03</b>	<b>Yes</b>	<b>Poor</b>
12	<b>1.03</b>	<b>Yes</b>	Mixed
13	<b>1.09</b>	<b>Yes</b>	Mixed
14	<b>1.01</b>	<b>Yes</b>	Good
15	<b>1.03</b>	<b>Yes</b>	Mixed
16	<b>1.03</b>	<b>Yes</b>	Mixed
South Fabius	1.40	No	Mixed
Little Fox	1.24	No	Very Good

\*Left descending bank rated poor; right descending bank rated very good

#### 5.4 Stream Width and Depth Measurements

Transect measurements for average channel width (= lower bank width), average wetted width, average stream depth, maximum depth, and standard deviation for depth for North Fabius stations are represented in Table 5. Overall average values and ranges from selected BIOREF stations are also presented. Because glide/pool BIOREF channel dimension data are only available for the Little Fox River in the Plains/MS Tributaries between Des Moines and MO Rivers EDU, more suitable data were needed for comparison. Thus the data represent an average of nine stream channel measurements including eight glide/pool biocriteria reference stations in the adjacent Plains/Grand/Chariton EDU along with the Little Fox. Channel width to wetted width and wetted width to depth ratios are also presented. The ratios allow for standardization of channel measurements for longitudinal comparisons. Channel width typically widens as a stream proceeds downstream, but wetted width and depth do not necessarily have the same pattern. These ratios allow channel widths and depths to be compared along a stream

reach. The average wetted width of the BIOREF stations was well below the range of the wetted widths of the North Fabius stations. However the average depth of the BIOREF stations was comparable with the average depth of all the North Fabius stations (0.7 ft.) and was greater than the average depth of 12 of the North Fabius stations.

The average channel width of the North Fabius did not show the tendency to increase upon moving downstream below station 8. There was actually an abrupt increase in channel widths at stations 7 and 8 moving upstream. These trends are likely due to the apparent channelization from stations 7 through 16 (see Figure 1).

Maximum depths for the BIOREF stations were greater than the maximum depths for the North Fabius (see Figure 2).

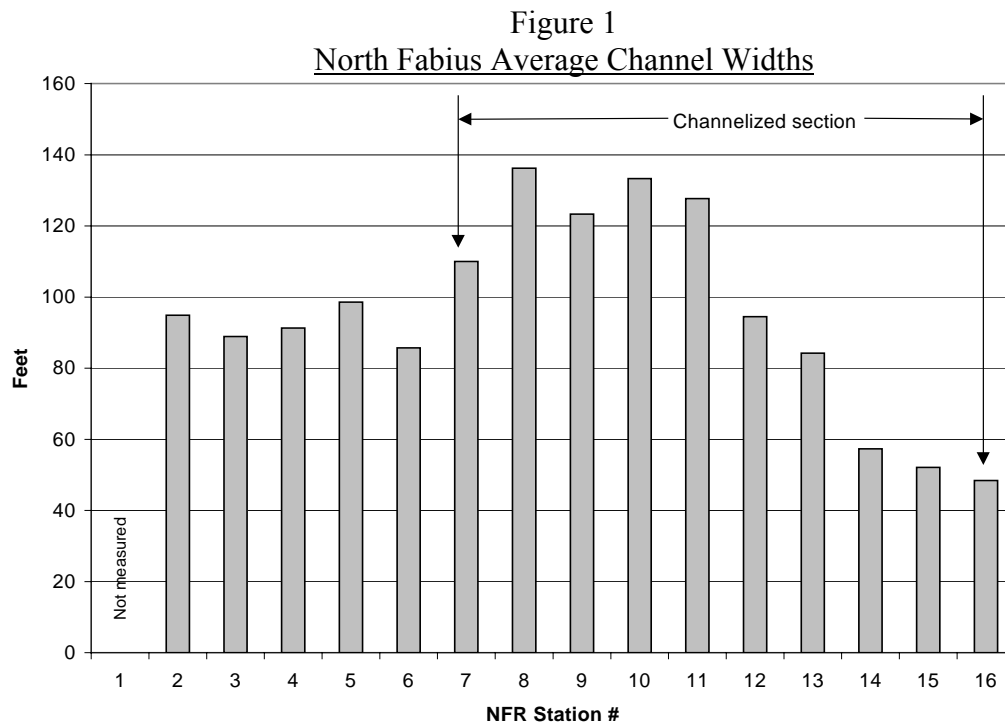
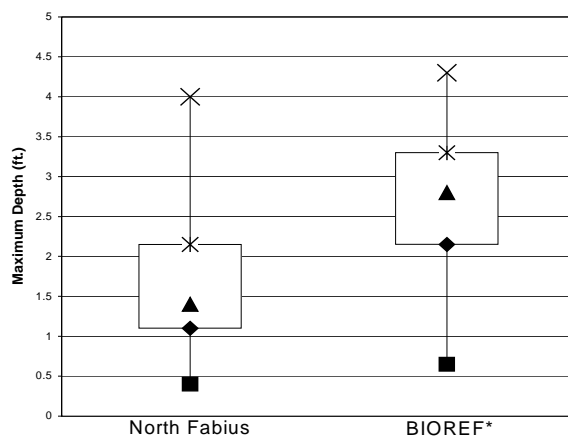


Table 5  
Channel Dimensions

Station	Average Channel Width (ft.)	Average Wetted Width (ft.)	Average Depth (ft.)	Maximum Depth (ft.)	Standard Deviation of Depth	Channel Width/Wetted Width	Wetted Width/Depth
North Fabius (unchannelized)							
2	94.90	85.60	1.05	1.75	0.36	1.11	81.39
3	88.90	81.00	1.85	4.00	0.79	1.10	43.74
4	91.30	33.30	0.67	1.40	0.28	2.74	49.65
5	98.60	45.50	0.62	1.15	0.26	2.17	73.19
6	85.70	52.20	0.54	1.75	0.36	1.64	96.73
(channelized)							
7	110.00	63.10	0.47	1.20	0.32	1.74	134.73
8	136.20	45.40	0.48	1.10	0.25	3.00	94.39
9	123.30	45.50	0.79	3.90	0.86	2.71	57.94
10	133.30	41.50	0.49	1.10	0.23	3.21	85.57
11	127.70	45.00	0.53	2.40	0.43	2.84	85.01
12	94.50	44.90	0.58	1.10	0.23	2.10	76.93
13	84.20	39.05	0.67	3.30	0.79	2.16	58.63
14	57.30	32.80	0.73	1.90	0.53	1.75	45.18
15	52.10	26.50	0.28	0.70	0.16	1.97	94.53
16	48.40	12.90	0.22	0.40	0.08	3.75	59.45
BIOREF*							
average	44.24	26.10	0.92	2.71		1.75	33.63
range	32.8-57.0	17.3-40.3	0.1-1.4	0.65-4.3	0.16-1.19	1.37-2.84	16.54-68.32

\*Glide/Pool BIOREF streams in the Plains/MS Tributaries between Des Moines and MO Rivers (Little Fox) AND Plains/Grand/Chariton EDUs

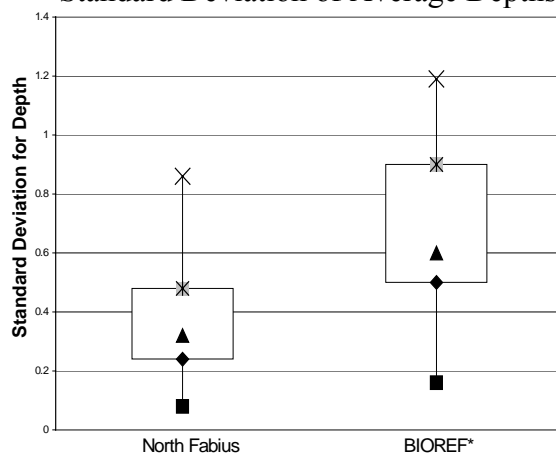
Figure 2  
 Maximum Depths



\* BIOREF streams in the Plains/MS Tributaries between Des Moines and MO Rivers (Little Fox) AND Plains/Grand/Chariton EDUs

Standard deviations of depths for the BIOREF stations were higher than those of the North Fabius stations indicating less heterogeneity of depths on the North Fabius (see Figure 3).

Figure 3  
 Standard Deviation of Average Depths

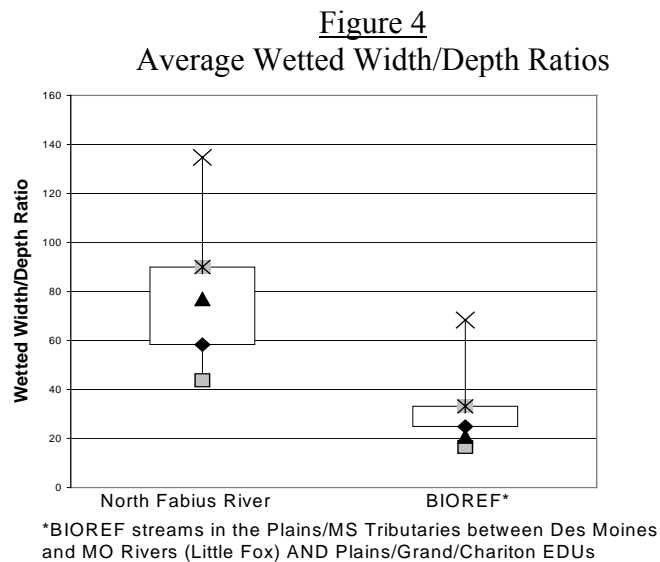


\* BIOREF streams in the Plains/MS Tributaries between Des Moines and MO Rivers (Little Fox) AND Plains/Grand/Chariton EDUs

The ratio of average channel width to average wetted width for the BIOREF stations fell within the range of the ratios for the North Fabius stations. However the ratio of average wetted width to depth was considerably lower in the BIOREF stations than the range for



the North Fabius stations. The higher wetted width to depth ratio indicates a tendency toward a wider and shallower stream (see Figure 4).



## 5.5 Physicochemical Data

*In situ* water quality measurements and turbidity are summarized in Table 6 (Fall 2005) and Table 7 (spring 2006). Mean temperatures at North Fabius stations were 22.8°C and 14.7°C in the fall 2005 and spring 2006 surveys, respectively.

Conductivity levels were consistent among stations and between seasons. Dissolved oxygen levels were consistent between stations within each season and did not fall below the Water Quality Standards minimum concentration for warm-water and cool-water fisheries (5.0 mg/L) at three stations. The difference in DO levels between seasons is consistent with related seasonal difference in water temperatures and flows.

Turbidity levels during the fall were somewhat consistent with a few higher values coming shortly after precipitation events. During the spring, turbidity values were more varied and reached as high as 222 NTU at station 13 and 257 NTU at station 12. Some of the spring sampling was conducted during snowmelt runoff and after rain events.

Nutrient and chloride concentrations are presented in Table 8 (fall 2005) and Table 9 (spring 2006). All ammonia results were below detectable limits during the fall 2005 survey period. During the spring 2006 survey period, five of the North Fabius stations had ammonia levels that were detectable with a maximum of 0.1 mg/L at station #12. Station #12 is the station most immediately downstream of the Memphis WWTF. This level is well below general warm-water fishery chronic criteria for total ammonia. However, the ammonia level at the South Fabius BIOREF station for spring 2006 did exceed the chronic criteria for total ammonia nitrogen. Nitrate + nitrite and total nitrogen

concentrations were generally higher during the spring season. Total phosphorous levels were consistent between stations and seasons. Chloride levels were consistent between stations and seasons and well below chronic criteria for protection of aquatic life and drinking water supply.

Table 6  
*In situ* Water Quality Measurements and Turbidity at all Stations (Fall 2005)

Station	Parameter				
	Temp. (°C)	Diss. O <sub>2</sub> (mg/L)	Cond. (µmhos/cm)	pH	Turb. (NTU)
<b>North Fabius</b>					
1	25	6.6	484	8	15
2	25.4	8.4	496	8.3	13
3	22.2	5.6	481	8.4	43
4	24.4	9	509	8.3	17
5	24.6	9	511	8.4	16
6	23	8.3	433	8.2	11
7	23.1	8.3	449	8	6
8	18.5	7.3	311	7.9	93
9	25.3	8.5	399	8	54
10	19.5	8.4	473	7.8	9
11	24.3	9.7	493	8.3	3
12	28.1	8.5	488	7.9	8
13	21	6.5	508	7.6	38
14	20.4	7.2	495	7.8	8
15	23.6	9.3	535	7.9	2
16	15.6	5.5	566	7	2
<b>BIOREF</b>					
South Fabius	19.1	4.8	588	7.8	4
Little Fox	16.1	8.4	445	7.7	7

Table 7  
*In situ* Water Quality Measurements and Turbidity at all Stations (Spring 2006)

Station	Parameter				
	Temp. (°C)	Diss. O <sub>2</sub> (mg/L)	Cond. (µmhos/cm)	pH	Turb. (NTU)
<b>North Fabius</b>					
1	-	-	-	-	-
2	19.4	12.7	425	8.7	17
3	16.6	9.9	436	8.3	17
4	15.5	9.2	439	8.1	16
5	17.8	10	428	8.4	9
6	15.5	9.4	474	8.2	10
7	11	11	383	8	45
8	14	10.2	400	8.2	31
9	13	11.4	433	8.2	90
10	10.5	11	420	8.2	114
11	7.0	12.2	435	8.2	88
12	7.0	10.8	374	8.1	<b>257</b>
13	7.0	11.8	370	8.2	<b>222</b>
14	17.5	10.2	527	7.9	18
15	23	9.7	593	8	14
16	25	9.8	606	8.1	9
<b>BIOREF</b>					
South Fabius	16.6	7.9	390	7.8	47
Little Fox	15.5	9.9	438	7.9	12

Table 8  
Nutrient Concentrations at all Stations (Fall 2005)

Station	Sample #	Parameter (mg/L)				
		NH <sub>3</sub> -N	NO <sub>3</sub> + NO <sub>2</sub> -N	Total N	Total Phos.	Chloride
<b>North Fabius</b>						
1	0505661	<0.03	<0.01	0.54	0.01	15.5
2	0505662	<0.03	0.01	0.42	0.07	16.2
3	0505663	<0.03	0.04	0.69	0.12	14.8
4	0505664	<0.03	0.01	0.54	0.04	15.3
5	0505665	<0.03	<0.01	0.26	0.03	15.6
6	0505668	<0.03	0.02	0.55	0.04	13.6
7	0505673	<0.03	<0.01	0.39	0.06	14.1
8	0505666	<0.03	0.38	0.78	0.18	10.4
9	0505669	<0.03	0.06	0.61	0.12	13.3
10	0505670	<0.03	0.01	0.36	0.07	14.8
11	0505671	<0.03	0.03	0.36	0.04	16.3
12	0505672	<0.03	<0.01	0.28	0.05	14.7
13	0505674	<0.03	0.01	0.32	0.02	14.6
14	0505675	<0.03	<0.01	0.27	0.02	13.9
15	0505677	<0.03	0.01	0.28	0.31	14.2
16	0505678	<0.03	<0.01	0.24	0.3	13.7
<b>BIOREF</b>						
South Fabius	0505667	<0.03	<0.01	0.37	<0.01	18.8
Little Fox	0505676	<0.03	<0.01	0.38	0.28	9.68

**Table 9**  
**Nutrient Concentrations at all Stations (Spring 2006)**

Station	Sample #	Parameter (mg/L)				
		NH <sub>3</sub> -N	NO <sub>3</sub> + NO <sub>2</sub> -N	Total N	Total Phos.	Chloride
<b>North Fabius</b>						
1	-	-	-	-	-	-
2	0601266	0.03	<0.01	0.69	0.05	15.3
3	0601265	<0.03	0.04	0.66	0.06	15.3
4	0601264	<0.03	0.08	0.58	0.05	15.2
5	0601263	<0.03	0.11	0.62	0.05	15.1
6	0601262	<0.03	0.14	0.59	0.04	15.1
7	0601286	<0.03	0.41	1.21	0.11	16.7
8	0601287	0.04	0.36	1.13	0.1	17.2
9	0601295	<0.03	0.56	1.51	0.15	18.1
10	0602596	<b>0.04</b>	0.59	1.59	0.18	18
11	0601293	<b>0.07</b>	0.62	1.56	0.15	18.7
12	0601292	<b>0.1</b>	0.55	1.69	0.23	16.3
13	0601291	<b>0.06</b>	0.58	1.71	0.22	16.2
14	0601282	<0.03	0.01	0.48	0.05	15
15	0601283	<0.03	<0.01	0.42	0.05	16.4
16	0601284	<0.03	<0.01	0.49	0.03	16.8
<b>BIOREF</b>						
South Fabius	0601267	<b>8.87</b>	0.46	1.22	0.11	14.1
Little Fox	0601285	<0.03	0.61	1.11	0.07	16

## 5.6 Biological Assessment

### 5.6.1 Semi-quantitative Macroinvertebrate Stream Bioassessment Project Procedure (SMSBPP)

The SMSBPP evaluation used biological criteria that were calculated from ESP's database of Wadeable/Perennial Biological Reference Stream criteria for the Plains/MS Tributaries between Des Moines and MO Rivers EDU. See Biological Criteria for Wadeable/Perennial Streams of Missouri (MDNR 2002a) for more explanation. These criteria are listed for fall and spring seasons in Tables 10 and 11 respectively. Macroinvertebrate Stream Condition Index sustainability scores of 20-16 qualify as fully sustaining, 14-10 as partially sustaining, and 8-4 as non-sustaining of aquatic life.

Table 10  
Biological Criteria for Warm Water Reference Streams in the Plains/MS Tributaries  
between Des Moines and MO Rivers EDU (Fall Season)

	Score = 5	Score = 3	Score = 1
TR	>60	30 - 60	<30
EPTT	>11	5 - 11	<5
BI	<6.78	6.78 - 8.39	>8.39
SDI	>2.90	1.45 - 2.90	<1.45

Table 11  
Biological Criteria for Warm Water Reference Streams in the Plains/MS Tributaries  
between Des Moines and MO Rivers EDU (Spring Season)

	Score = 5	Score = 3	Score =1
TR	>46	23 - 46	<23
EPTT	>7	4 - 7	<4
BI	<7.26	8.63 - 7.26	>8.63
SDI	>2.30	1.15 - 2.30	<1.15

### **5.6.2 Comparisons with Regional Reference Streams in the Plains/MS Tributaries between Des Moines and MO Rivers EDU**

Macroinvertebrate Stream Condition Indices were calculated for the North Fabius and two BIOREF stations as derived from biological criteria from Plains/MS Tributaries between Des Moines and MO Rivers EDU reference streams. The four metrics, total scores, and MSCI sustainability rankings during fall 2004 and spring 2005 are presented in Tables 12 and 13 respectively. Even though the most downstream three North Fabius stations were similar in some ways to the South Fabius station, none of the North Fabius stations have the degree of riffle substrate as found in the South Fabius. All sixteen North Fabius stations were treated as glide/pool prevalent streams. The MSCI score for the South Fabius is derived from riffle/pool criteria so no MSCI biological comparisons were made between the two streams.

**Table 12**  
**Metric Values and Stream Condition Indices, Fall 2005 Sampling Season**

Station	Sample #	TR	EPTT	BI	SDI	MSCI	Sustainability
<b>North Fabius</b>							
1	0503113	68	19	7.62	2.24	16	<b>Full</b>
2	0503114	64	16	6.42	3.43	20	<b>Full</b>
3	0503115	71	13	6.58	3.33	20	<b>Full</b>
4	0503116	76	20	6.14	3.13	20	<b>Full</b>
5	0503117	67	19	6.43	2.89	18	<b>Full</b>
6	0503121	74	17	6.06	2.90	18	<b>Full</b>
7	0503126	78	19	6.03	3.21	20	<b>Full</b>
8	0503118	85	18	6.44	3.26	20	<b>Full</b>
9	0503122	78	16	6.58	3.21	20	<b>Full</b>
10	0503123	79	17	6.35	3.00	20	<b>Full</b>
11	0503124	65	18	6.31	2.96	20	<b>Full</b>
12	0503125	71	15	6.51	3.03	20	<b>Full</b>
13	0503127	73	18	6.92	3.29	18	<b>Full</b>
14	0503128	74	18	6.29	3.14	20	<b>Full</b>
15	0503130	77	15	6.97	3.25	18	<b>Full</b>
16	0503131	73	17	6.83	3.28	18	<b>Full</b>
<b>BIOREF</b>							
South Fabius (a)	0503119	73	18	6.22	3.14	16	<b>Full</b>
South Fabius (b)*	0503120	74	18	6.10	2.92	16	<b>Full</b>
Little Fox	0503129	72	18	6.05	2.86	18	<b>Full</b>

\*Duplicate

Table 13  
Metric Values and Stream Condition Indices, Spring 2006 Sampling Season

Station	Sample #	TR	EPTT	BI	SDI	MSCI	Sustainability
<b>North Fabius</b>							
1	-	-	-	-	-	-	-
2	0602606	64	11	6.51	2.52	20	<b>Full</b>
3	0602605	70	13	6.55	2.8	20	<b>Full</b>
4	0602604	59	16	6.00	2.48	20	<b>Full</b>
5	0602603	64	19	5.98	2.79	20	<b>Full</b>
6 (a)	0602601	69	19	6.43	2.54	20	<b>Full</b>
6 (b)*	0602602	63	15	6.28	2.70	20	<b>Full</b>
7	0602599	67	13	6.74	2.92	20	<b>Full</b>
8	0602600	64	10	6.85	2.92	20	<b>Full</b>
9 (a)	0602597	62	7	6.71	3.17	18	<b>Full</b>
9 (b)*	0602598	68	10	7.09	2.92	20	<b>Full</b>
10	0602596	63	11	6.77	2.89	20	<b>Full</b>
11	0602595	71	10	7.06	2.83	20	<b>Full</b>
12	0602594	73	13	6.82	3.29	20	<b>Full</b>
13	6020593	70	14	6.96	3.14	20	<b>Full</b>
14	0602608	62	14	6.91	2.73	20	<b>Full</b>
15	0602609	73	13	7.06	2.71	20	<b>Full</b>
16	0602610	60	11	7.04	2.29	20	<b>Full</b>
<b>BIOREF</b>							
South Fabius	0602607	93	23	6.09	3.31	20	<b>Full</b>
Little Fox	0602611	61	9	7.08	2.09	18	<b>Full</b>

\*Duplicates

### 5.6.3 North Fabius Longitudinal Comparison

There are no significant differences between SCI scores and metrics longitudinally. All sampling stations during both seasons received an SCI of “full sustainability” with the majority of MSCI scores a 20.

### 5.6.4 North Fabius Seasonal Comparison

There were no differences in sustainability rankings between seasons and only minor MSCI differences with overall higher scores during the spring. During the spring, all but one station (9) received an MSCI score of 20 and that station received an 18 even though it’s duplicate had a MSCI score of 20. During the fall, six MSCI scores fell below 20 with only one station (1) falling to 16.



### **5.6.5 Comparison of North Fabius with BIOREF Station**

There were no differences between sustainability rankings between the North Fabius and the Little Fox BIOREF stations and only very minor differences in MSCI scores.

### **5.6.6 Macroinvertebrate Percent and Community Composition**

Macroinvertebrate taxa richness, EPT taxa, percent EPT relative abundance, and top five dominant families are presented in Table 14 for the fall sampling season and Table 15 for the spring sampling season. The percent of relative abundance data were averaged from the sum of the three macroinvertebrate habitats (depositional non-flow, woody debris, and rootmat) sampled at each station with the exception of the South Fabius. Percent relative abundance data for the South Fabius was added for general information only and was derived from coarse substrate instead of woody debris.

Diptera was the dominant order at all sixteen North Fabius sample stations during the fall 2005 sample season and all fifteen sample stations during the spring 2006 season. The Diptera family Chironomidae was dominant at all North Fabius stations during both seasons. Chironomidae was also the dominant family at the Little Fox BIOREF station during the fall, however, Caenidae was the dominant family during the spring.

North Fabius taxa richness and EPTT scores were consistent between the stations as well as with the Little Fox BIOREF stations with both metrics slightly higher during the fall season. During the fall, taxa richness ranged from 64 to 85 at the North Fabius and fell within that range at the Little Fox BIOREF station. During the spring, North Fabius taxa richness ranged from 59 to 73 with the Little Fox BIOREF taxa richness falling within that range. Fall EPTT scores for the North Fabius ranged from 13 to 20 with the Little Fox scoring within that range. Spring EPTT scores for the North Fabius ranged from 7 to 19 with the Little Fox scoring within that range.

**Table 14**  
**Fall 2005 Macroinvertebrate Composition (percentages rounded to whole numbers)**

	North Fabius																SF	SF	LF
Station	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	1a	1b	1
Taxa Richness	68	64	71	76	67	74	78	85	78	79	65	71	73	74	77	73	73	74	72
EPTT	19	16	13	20	19	17	19	18	16	17	18	15	18	18	15	17	18	18	18
% Ephemeroptera	3	25	10	16	9	16	15	15	10	7	7	16	10	20	24	23	30	36	39
% Plecoptera	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trichoptera	7	9	9	25	24	19	21	14	14	19	20	13	9	9	5	2	10	11	4
Total EPT %	10	34	19	41	33	35	36	29	24	26	27	29	19	29	29	25	40	47	43
% Diptera	74	37	50	53	60	56	53	59	58	60	52	47	62	47	47	56	29	14	40
<b>% Dominant Families</b>																			
Chironomidae	74	34	50	51	58	54	52	56	57	58	51	46	61	46	46	53	12	14	39
Corixidae	7		11									8		11			12	7	
Leptoceridae	7	8	8	24	24	19	18	12	12	16	19	10	7	6			5		
Coenagrionidae	2	7	6							4		5	8		4				
Tubificidae	2						3	4			10								
Heptageniidae		12		5	2														4
Elmidae		7															15	19	
Scirtidae			4													3			
Leptohyphidae				4													19	22	
Caenidae				3	3	6	6	3					3	3	11	16			11
Baetidae					2	3		8		2									
Leptophlebiidae						3	4		4			8	4	13	8				24
Sphaeriidae									3										
Physidae									3						8	6			8
Hydropsychidae										2								8	
Calopterygidae											5								

SF—South Fabius (from CS, NF, and RM data); LF—Little Fox River

**Table 15**  
**Spring 2006 Macroinvertebrate Composition (percentages rounded to whole numbers)**

	North Fabius																		SF	LF
Station	1	2	3	4	5	6a	6b	7	8	9a	9b	10	11	12	13	14	15	16	1	1
Taxa Richness	-	64	70	59	64	69	63	67	64	62	68	63	71	73	70	62	73	60	93	61
EPTT	-	11	13	16	19	19	15	13	10	7	10	11	10	13	14	14	13	11	23	9
% Ephemeroptera	-	5	5	11	19	18	14	12	10	11	7	6	11	16	14	19	24	23	25	53
% Plecoptera	-	0	<1	<1	<1	<1	<1	<1	<1	0	0	<1	0	0	<1	<1	1	<1	2	1
% Trichoptera	-	3	7	10	15	14	15	6	4	9	3	3	6	7	1	5	1	1	2	1
Total EPT %	-	8	12	21	34	32	29	18	14	20	10	9	17	25	15	24	26	24	29	55
% Diptera	-	69	73	62	61	63	64	73	79	56	82	64	60	47	61	61	66	71	36	38
<b>% Dominant Families</b>																				
Chironomidae		67	70	54	59	61	60	70	75	48	80	58	56	43	54	59	63	69	31	26
Corixidae		16	8	13		2	4		2	8		19	14	12	13				11	
Leptoceridae		3	7	9	16	13	15	6	4	8	3		6	5		4		1		
Tubificidae		2											2				1			
Elmidae		2														2	1		12	
Ceratopogonidae			3						2			3						1		
Caenidae			2		6	12	7	6	6	6	4		8	6	6	16	22	22	9	51
Simuliidae				8																11
Baetidae				7	10	2	4	2											9	
Heptageniidae					2															
Leptophlebiidae								2			2	3		8	6					1
Sphaeriidae										6	2					7				
Lymnaeidae												3								
Hyalellidae															3		2	3		3

SF—South Fabius (from CS, NF, and RM data); LF—Little Fox River

## **6.0 Discussion**

Physicochemical results revealed few definitive trends other than typical seasonal differences.

Macroinvertebrate data did not reveal any notable impairment in the North Fabius and tend to indicate a healthy community for its EDU.

The biological assessment fails to indicate impairment in spite of seven of the sixteen North Fabius stations with SHAPP scores that are at or below the acceptable 75% threshold. Further habitat degradation can be seen in the evidence of historic channelization from station 7 upstream through the extent of the study area (see Table 4 and Figure 1). A lack of abundant woody debris was evident in the North Fabius, which is typical of channelized streams.

Channel dimension measurements provide further evidence of habitat impairment, especially the wetted width/depth ratios showing wide and shallow flow. Maximum depths in the BIOREF stations were higher than those in the North Fabius and greater standard deviations for depths in the BIOREF stations indicate lower depth heterogeneity in the North Fabius.

At some stations there are also high channel width/wetted width ratios. For example, station 8 where the channel to wetted width ratio was 3.00, there were very large in-channel deposits of loose sandbars that were near, or exceeded widths of 100 feet in seven of the ten transects. Some of these sandbars reach as high as approximately 3-4 feet above the water surface next to the wetted bank.

Although the macroinvertebrate evaluation shows full sustainability during both seasons in the North Fabius, this may not necessarily give the full assessment of the overall quality of the stream. Macroinvertebrate assessments tend to be more suitable for water and substrate quality studies, however, it is recommended that streams that are extensively channelized should also be evaluated for fish communities (MDNR 2005).

## **7.0 Conclusions**

Based on this study, there can be no conclusion drawn that the North Fabius is biologically impaired by sediment. There are, however, based on habitat assessment and stream dimension measurements, significant physical alterations to the stream.

## **8.0 Recommendations**

Because no biological impairment was revealed by this study and the North Fabius appears to be maintaining a healthy macroinvertebrate community, it is recommended for removal from the 303(d) list of impaired waters.

Since habitat appears to be an issue due to channelization however, the North Fabius should continue to be monitored and should include a fish community assessment.

## **9.0 Summary**

- The null hypothesis that macroinvertebrate assemblages are similar between North Fabius and reference streams in the same EDU is accepted.
- Because of historic channelization of a portion of the stream, the null hypothesis that habitat quality among the North Fabius segments is similar is rejected.
- The null hypothesis that macroinvertebrate assemblages are similar between North Fabius and BIOREF streams is accepted.
- The null hypothesis that habitat quality is similar between North Fabius and suitable BIOREF streams is rejected.

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Submitted by:

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## **Appendix A**

Map

North Fabius River

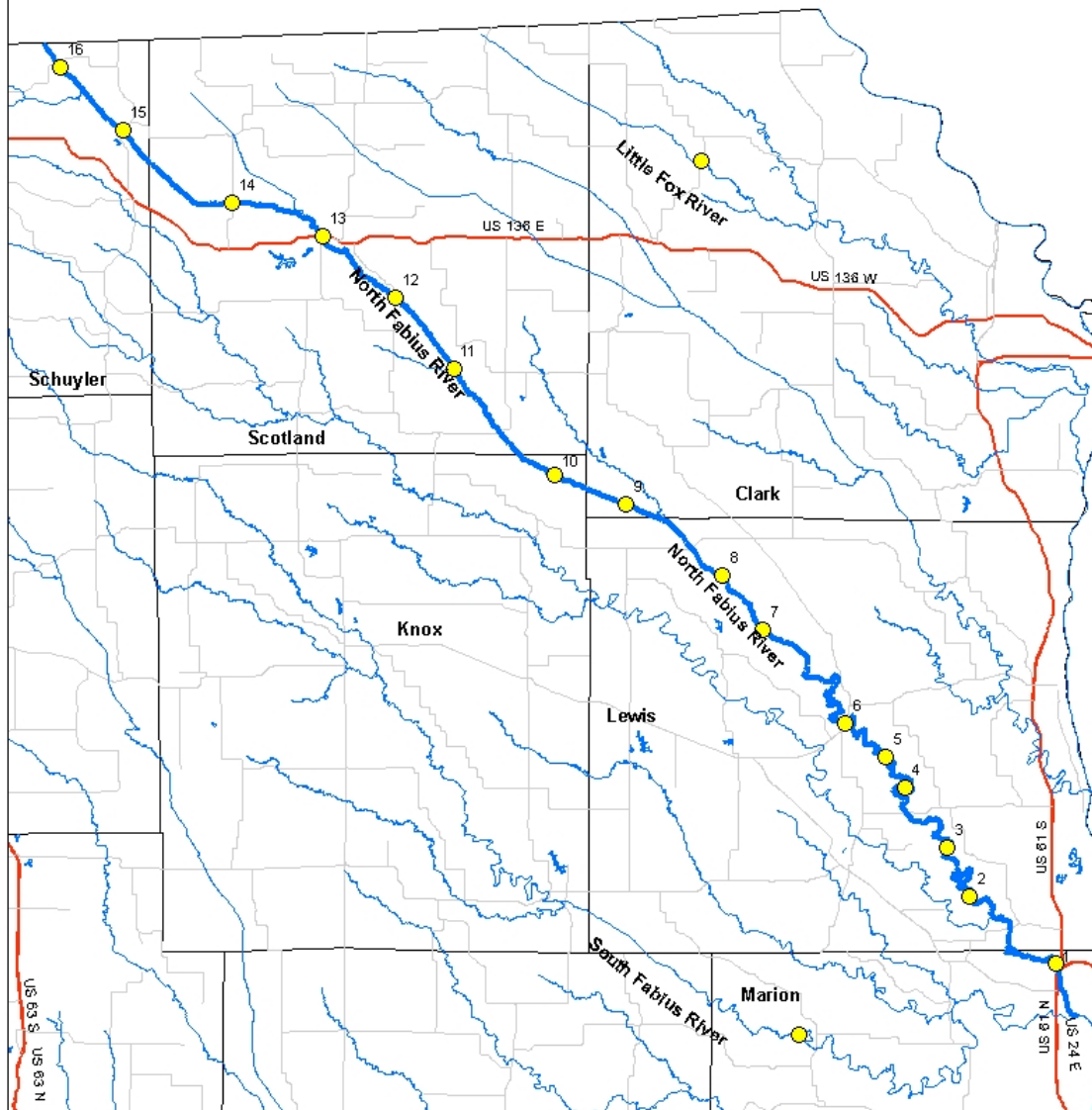
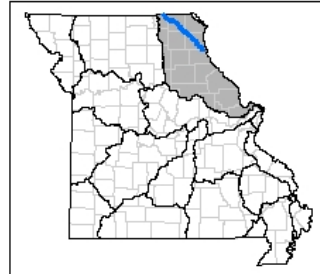
Plains/MS Tributaries between Des Moines and MO Rivers Ecological Drainage Unit (EDU)

## Legend

- Sample Stations
- North Fabius River
- Classified Waters
- Missouri Roads
- Federal Roads
- County Boundary



0 2 4 8 12 16 Miles



## **Appendix B**

### Macroinvertebrate Bench Sheets

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503113], Station #1, Sample Date: 9/13/2005 11:00:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>"HYDRACARINA"</b>			
Acarina	16		
<b>COLEOPTERA</b>			
Berosus		4	
Dubiraphia	3	1	
Helichus lithophilus		1	
Laccophilus		1	
Macronychus glabratus		1	2
Scirtidae		6	2
Stenelmis			1
Tropisternus		1	
<b>DECAPODA</b>			
Orconectes luteus		-99	
<b>DIPTERA</b>			
Ablabesmyia	4		2
Axarus			3
Ceratopogoninae	2		
Cladotanytarsus	2		
Coelotanypus	5		
Cryptochironomus	4		
Cryptotendipes	7		
Dicrotendipes	13	6	10
Ephydriidae			-99
Forcipomyiinae			2
Glyptotendipes	44	187	316
Harnischia	1	1	
Labrundinia			1
Parachironomus		17	2
Paralauterborniella	1		
Polypedilum convictum grp		1	12
Polypedilum illinoense grp	1	5	8
Procladius	26		
Pseudochironomus	1		
Rheotanytarsus	2		18
Stempellina	1		
Tanypus	1	6	
Tanytarsus	46		4
Thienemannimyia grp.			1
Tribelos	2	3	1

**EPHEMEROPTERA**

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503113], Station #1, Sample Date: 9/13/2005 11:00:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Baetis			2
Caenis hilaris	5		1
Caenis latipennis	6		
Callibaetis		2	
Heptageniidae	1		
Hexagenia limbata		-99	
Isonychia rufa			-99
Leptophlebiidae			1
Proclueon	4		
Stenacron	2		
Stenonema integrum			1
Stenonema terminatum	2		2
Tricorythodes			1
<b>HEMIPTERA</b>			
Mesovelia		1	
Pelocoris		1	
Rheumatobates		2	
Trichocorixa	49	19	2
<b>LIMNOPHILA</b>			
Physella		1	-99
<b>MEGALOPTERA</b>			
Corydalus			-99
<b>ODONATA</b>			
Argia	1	13	9
Enallagma		1	
Gomphus	1		
Libellulidae	3		
Macromia			-99
<b>TRICHOPTERA</b>			
Cheumatopsyche			2
Cynellus fraternus	-99		1
Hydropsyche			3
Nectopsyche	45	4	
Oecetis	19	1	1
Polycentropus			-99
<b>TUBIFICIDA</b>			
Aulodrilus	15		
Tubificidae	4		
<b>VENEROIDEA</b>			
Sphaeriidae	1	-99	

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503114], Station #2, Sample Date: 9/13/2005 2:30:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>"HYDRACARINA"</b>			
Acarina	3		3
<b>COLEOPTERA</b>			
Berosus		2	
Dubiraphia	5	6	3
Helichus lithophilus		2	
Macronychus glabratus	2	10	19
Scirtidae		45	6
Stenelmis	10	4	3
<b>DECAPODA</b>			
Orconectes luteus		-99	
<b>DIPTERA</b>			
Ablabesmyia	19	2	11
Axarus			1
Ceratopogoninae	6		8
Cladotanytarsus			3
Corynoneura			1
Cryptochironomus	3	1	
Cryptotendipes	25		1
Dicrotendipes	40	8	31
Diptera			1
Forcipomyiinae		1	6
Glyptotendipes		14	9
Labrundinia	2	9	8
Nanocladius	2	1	
Parachironomus	1	16	
Paralauterborniella	1		
Polypedilum illinoense grp	1	6	4
Procladius	19		5
Pseudochironomus	3		5
Stempellina			1
Stenochironomus			5
Tanytarsus	27	13	10
Thienemanniella			1
Tribelos		2	
undescribed Empididae		2	
<b>EPHEMEROPTERA</b>			
Caenis hilaris	8		
Caenis latipennis	17	2	3
Heptageniidae		3	2

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503114], Station #2, Sample Date: 9/13/2005 2:30:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Hexagenia limbata	2		2
Leptophlebiidae	4	41	15
Paracloeodes			1
Procloeon	17	1	5
Stenacron	22	23	39
Stenonema femoratum	4	1	
Stenonema terminatum	2		8
Tricorythodes	3	2	1
<b>HEMIPTERA</b>			
Corixidae	11	1	
Rheumatobates			1
<b>LIMNOPHILA</b>			
Physella		6	
<b>MEGALOPTERA</b>			
Sialis		1	
<b>ODONATA</b>			
Argia	8	33	16
Basiaeschna janata		-99	
Enallagma	1	7	
Gomphus	-99		
Macromia	1	1	-99
Neurocordulia			-99
Stylurus		-99	
<b>TRICHOPTERA</b>			
Cernotina	7		
Cheumatopsyche		1	
Cynellus fraternus			2
Nectopsyche	19	39	5
Oecetis	5		
<b>TRICLADIDA</b>			
Planariidae	2	2	
<b>TUBIFICIDA</b>			
Aulodrilus	2		
Branchiura sowerbyi	12		1
Tubificidae	14	8	
<b>VENEROIDEA</b>			
Sphaeriidae	1	2	8

# **Aquid Invertebrate Database Bench Sheet Report**

**North Fabius R [0503115], Station #3, Sample Date: 9/14/2005 9:30:00 AM**

**CS = Coarse; NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>CS</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>"HYDRACARINA"</b>				
Acarina		1	6	
<b>COLEOPTERA</b>				
Berosus		1		
Dubiraphia	1	4		
Helichus lithophilus			1	
Macronychus glabratus		2	5	16
Scirtidae		1	30	9
Stenelmis	25		3	2
<b>DECAPODA</b>				
Orconectes virilis			-99	
<b>DIPTERA</b>				
Ablabesmyia	2	5	3	4
Anopheles			1	1
Axarus				5
Ceratopogoninae		2	1	1
Chironomus		3	1	
Cladotanytarsus		12	1	1
Corynoneura	1			
Cricotopus/Orthocladius	1			
Cryptochironomus	1	5		1
Cryptotendipes		7		
Dicrotendipes	7	16	17	91
Diptera	1		2	1
Endochironomus				1
Forcipomyiinae			1	3
Glyptotendipes		1	14	45
Labrundinia	1		6	3
Larsia	7			
Nanocladius	3			1
Nemotelus			1	
Parachironomus		3	12	1
Parakiefferiella		4		
Paralauterborniella		1		
Phaenopsectra	1			
Polypedilum	1			
Polypedilum convictum grp	83			
Polypedilum halterale grp		6	1	
Polypedilum illinoense grp		3	12	3
Polypedilum scalaenum grp	2	2		1



**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503115], Station #3, Sample Date: 9/14/2005 9:30:00 AM****CS = Coarse; NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>CS</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Procladius	1	20	2	2
Pseudochironomus				4
Rheotanytarsus	7			
Simulium	7			
Stelechomyia				5
Stempellinella	1	1	1	
Stenochironomus				6
Stictochironomus		2		
Tanytarsus	18	27	19	17
Thienemanniella	1			
Thienemannimyia grp.	29	1	7	14
Tribelos				12
<b>EPHEMEROPTERA</b>				
Acerpenna	1			
Baetis	52	1		
Caenis hilaris	11		1	4
Caenis latipennis		2	8	3
Callibaetis		1	1	
Heptageniidae	1			
Isonychia	10			
Leptophlebiidae			20	12
Leucrocuta	1			
Procloeon		6	6	2
Pseudocloeon	4			
Stenacron			8	8
Stenonema femoratum		1	1	
Stenonema terminatum	56			
Tricorythodes	272	1	1	4
<b>HEMIPTERA</b>				
Corixidae	1			
Microvelia			1	
Neoplea			1	
Pelocoris			1	
Rheumatobates			1	
Trepobates			11	
Trichocorixa		88		7
<b>LIMNOPHILA</b>				
Lymnaeidae			3	2
Physella			2	
<b>MEGALOPTERA</b>				
Corydalus	1			1

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503115], Station #3, Sample Date: 9/14/2005 9:30:00 AM****CS = Coarse; NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>CS</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Sialis			1	
ODONATA				
Argia			21	30
Basiaeschna janata			-99	
Boyeria				-99
Enallagma			4	
Macromia	-99			
TRICHOPTERA				
Cheumatopsyche	39		1	
Cynellus fraternus			1	1
Hydropsyche	3			
Hydroptila	2			
Nectopsyche		6	59	5
Oecetis	14	1	1	2
Rhyacophila	-99			
TRICLADIDA				
Planariidae	1		2	
TUBIFICIDA				
Branchiura sowerbyi			2	
Limnodrilus cervix		2		
Tubificidae	1	1	2	
VENEROIDEA				
Sphaeriidae	3	3	3	

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503116], Station #4, Sample Date: 9/14/2005 12:30:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>COLEOPTERA</b>			
Dubiraphia	1		
Enochrus	1	3	
Helichus lithophilus			-99
Macronychus glabratus		1	5
Paracymus		1	
Scirtidae		4	
Stenelmis	3		1
<b>DIPTERA</b>			
Ablabesmyia	2	1	1
Axarus	1		
Ceratopogoninae	5	1	2
Chironomus	22		
Cladotanytarsus	10		3
Corynoneura		1	1
Cricotopus/Orthocladius			5
Cryptochironomus	4		
Cryptotendipes	8		1
Dicrotendipes	14	7	66
Forcipomyiinae			7
Glyptotendipes		1	2
Hemerodromia			1
Labrundinia	4	1	3
Limonia	1		
Nanocladius		1	3
Parachironomus			4
Paralauterborniella	10		
Paratendipes	1		
Polypedilum			3
Polypedilum convictum grp		1	16
Polypedilum halterale grp	4		
Polypedilum illinoense grp	5	29	6
Polypedilum scalaenum grp	12	1	
Procladius	12		
Pseudochironomus	1		
Rheotanytarsus	4	1	27
Simulium		2	1
Stelechomyia			7
Stempellinella	10	1	
Stenochironomus			2

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503116], Station #4, Sample Date: 9/14/2005 12:30:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Stictochironomus	5		
Tanytarsus	40	11	92
Thienemanniella		3	4
Thienemannimyia grp.	1	3	15
Tribelos	2	1	5
Xenochironomus		1	
<b>EPHEMEROPTERA</b>			
Acerpenna		5	2
Baetis		8	7
Caenis hilaris	17	2	8
Caenis latipennis	6		
Ephemera	-99		
Isonychia		1	-99
Leptophlebiidae	1		3
Paracloeodes		1	
Procloeon			4
Pseudocloeon		1	
Stenacron	2		1
Stenonema integrum		1	
Stenonema terminatum	8	18	18
Tricorythodes	3	10	28
<b>HEMIPTERA</b>			
Corixidae	9		1
Rhagovelia			1
<b>LIMNOPHILA</b>			
Physella	1		
<b>MEGALOPTERA</b>			
Corydalus		1	-99
<b>ODONATA</b>			
Argia	8	8	3
Boyeria		1	
Gomphidae	1		
Gomphus	2	-99	
Libellulidae	1		
Macromia	-99		
<b>TRICHOPTERA</b>			
Cheumatopsyche	3	3	8
Hydropsyche			1
Hydroptila			2
Nectopsyche	47	179	1
Oecetis	3	2	2

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503116], Station #4, Sample Date: 9/14/2005 12:30:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Polycentropodidae	1		
TUBIFICIDA			
Branchiura sowerbyi	2		
VENEROIDEA			
Sphaeriidae	1		

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503117], Station #5, Sample Date: 9/14/2005 3:00:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>COLEOPTERA</b>			
Dubiraphia	3	7	
Helichus lithophilus		4	
Lutrochus			1
Macronychus glabratus			3
Scirtidae		3	1
Stenelmis			7
<b>DIPTERA</b>			
Ablabesmyia	1		5
Axarus	15		
Ceratopogoninae	2		
Chironomus	80	1	
Cladotanytarsus	28		1
Corynoneura			1
Cryptochironomus	3		
Cryptotendipes	3		
Dicrotendipes	27	1	128
Forcipomyiinae		2	9
Glyptotendipes	1	6	49
Labrundinia			1
Larsia	2		1
Nanocladius			3
Paracladopelma	2		
Paratendipes	4		
Polypedilum	2		
Polypedilum halterale grp	19		
Polypedilum illinoense grp	15	3	3
Polypedilum scalaenum grp	6		
Pseudochironomus	1		5
Psychoda			1
Rheotanytarsus	1	6	5
Stelechomyia			1
Stempellinella	4	1	
Stenochironomus			4
Tabanus	1	1	
Tanytarsus	61	8	56
Thienemannimyia grp.		1	20
Tribelos			11
<b>EPHEMEROPTERA</b>			
Acerpenna		2	2

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503117], Station #5, Sample Date: 9/14/2005 3:00:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Baetisca lacustris	1		
Brachycercus			1
Caenis hilaris	4	1	5
Caenis latipennis	8	4	5
Heptageniidae	2		4
Hexagenia limbata	1		
Isonychia		-99	
Leptophlebiidae		5	3
Paracloeodes		1	3
Procloeon	9	3	5
Pseudocloeon	1		
Stenacron		2	6
Stenonema femoratum			3
Stenonema terminatum		1	3
Tricorythodes	1	1	8
<b>HEMIPTERA</b>			
Corixidae	8	1	
Pelocoris		-99	
<b>LIMNOPHILA</b>			
Lymnaeidae		2	1
Physella		1	
<b>MEGALOPTERA</b>			
Sialis		-99	
<b>ODONATA</b>			
Argia		8	4
Boyeria		1	
Gomphus	8		-99
Macromia		-99	1
Progomphus obscurus	1		
<b>TRICHOPTERA</b>			
Hydropsychidae		4	
Nectopsyche	31	208	7
Oecetis			1
<b>TUBIFICIDA</b>			
Branchiura sowerbyi		1	
<b>VENEROIDEA</b>			
Sphaeriidae	-99		

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503121], Station #6, Sample Date: 9/20/2005 11:00:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>COLEOPTERA</b>			
Berosus	1		
Dubiraphia	13	5	
Helichus lithophilus		4	
Macronychus glabratus	1	2	5
Scirtidae		3	1
Stenelmis		3	
<b>DIPTERA</b>			
Ablabesmyia	5		2
Axarus			1
Ceratopogoninae	4		
Chironomus	24		
Cladotanytarsus	58		1
Corynoneura		1	1
Cryptochironomus	5		
Cryptotendipes	7		
Dasyheleinae	1		
Dicrotendipes	41	7	102
Diptera			11
Forcipomyiinae			4
Glyptotendipes		3	3
Hemerodromia			1
Labrundinia		3	3
Larsia	1	1	
Limonia			1
Nanocladius		3	
Polypedilum convictum grp			1
Polypedilum halterale grp	8		
Polypedilum scalaenum grp	3		2
Procladius	11	1	
Pseudochironomus	7		4
Simulium			1
Stelechomyia		1	2
Stempellina	1		
Stempellinella	12		
Stenochironomus			3
Stictochironomus	1		
Tanytarsus	110	29	92
Thienemanniella	2	1	2
Thienemannimyia grp.		9	9



**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503121], Station #6, Sample Date: 9/20/2005 11:00:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Tribelos			1
Zavrelimyia			2
<b>EPHEMEROPTERA</b>			
Acerpenna	2	10	6
Baetis		1	5
Brachycercus	1		
Caenis hilaris	5		1
Caenis latipennis	58	2	2
Heptageniidae		1	3
Hexagenia limbata	1		
Leptophlebiidae	3	30	
Procloeon	2	2	5
Stenacron	2		3
Stenonema integrum		1	-99
Stenonema terminatum	1		13
Tricorythodes			15
<b>HEMIPTERA</b>			
Belostoma		-99	
Corixidae	6	1	
Neoplea		1	
<b>LIMNOPHILA</b>			
Physella	4	1	
<b>MEGALOPTERA</b>			
Corydalus		-99	
Sialis		-99	
<b>NEUROPTERA</b>			
Climacia			1
<b>ODONATA</b>			
Argia	1	7	4
Basiaeschna janata		-99	
Gomphus	3	-99	-99
Hetaerina		2	
Macromia	1	-99	
Progomphus obscurus	-99		
<b>TRICHOPTERA</b>			
Cheumatopsyche		1	2
Cynellus fraternus			1
Hydroptila			1
Nectopsyche	13	184	6
<b>TRICLADIDA</b>			

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503121], Station #6, Sample Date: 9/20/2005 11:00:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Planariidae		1	
TUBIFICIDA			
Branchiura sowerbyi	8		
Tubificidae	5		
VENEROIDEA			
Sphaeriidae	1	2	

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503126], Station #7, Sample Date: 9/22/2005 11:00:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>"HYDRACARINA"</b>			
Acarina	2		
<b>COLEOPTERA</b>			
Dubiraphia	10	3	
Helichus lithophilus		1	
Hydrophilidae			1
Hydroporus		1	
Macronychus glabratus			1
Peltodytes	2		
Scirtidae		5	3
Stenelmis		1	
Tropisternus		2	
<b>DIPTERA</b>			
Ablabesmyia	4	3	2
Anopheles		1	
Axarus			13
Ceratopogoninae	3		
Chaoborus	1		
Chironomus	2		
Cladotanytarsus	25		2
Cryptochironomus	9	1	
Cryptotendipes	34		
Dicrotendipes	58	12	45
Dolichopodidae	1		
Forcipomyiinae			1
Glyptotendipes	1	2	6
Labrundinia	3	5	2
Larsia	1	2	2
Nanocladius	1	2	2
Parakiefferiella	3		
Paralauterborniella	8	1	1
Polypedilum convictum grp			1
Polypedilum halterale grp	2		
Polypedilum illinoense grp		1	
Polypedilum scalaenum grp		2	
Procladius	28	1	
Pseudochironomus	14		2
Rheotanytarsus	1	1	13
Simulium		1	2
Stelechomyia			7

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503126], Station #7, Sample Date: 9/22/2005 11:00:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Stempellina	6		
Stempellinella	13		
Stenochironomus			1
Tanytarsus	74	46	56
Thienemanniella		1	1
Thienemannimyia grp.		18	54
Tribelos			4
<b>EPHEMEROPTERA</b>			
Acerpenna			1
Baetisca lacustris		1	
Brachycercus	1		
Caenis hilaris	4		
Caenis latipennis	59	3	1
Hexagenia limbata	2		
Leptophlebiidae	1	32	9
Paracloeodes			1
Procloeon	6		1
Stenacron	1		
Stenonema femoratum	1		
Stenonema terminatum		1	27
Tricorythodes	1		21
<b>HEMIPTERA</b>			
Belostoma		1	
Corixidae	14		2
Rheumatobates	1		
<b>LIMNOPHILA</b>			
Lymnaeidae		1	4
Physella	2		
<b>MEGALOPTERA</b>			
Corydalus			-99
Sialis	-99	1	-99
<b>ODONATA</b>			
Argia	3	9	2
Gomphus	3		3
Macromia	-99	-99	1
<b>TRICHOPTERA</b>			
Cynellus fraternus			1
Hydropsyche			6
Hydropsychidae		1	26
Hydroptila			2
Nectopsyche	29	155	5

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503126], Station #7, Sample Date: 9/22/2005 11:00:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Oecetis	12	1	3
TRICLADIDA			
Planariidae		1	
TUBIFICIDA			
Aulodrilus	10		
Branchiura sowerbyi		1	
Tubificidae	23	2	
VENEROIDEA			
Sphaeriidae	4	3	

# Aquid Invertebrate Database Bench Sheet Report

North Fabius R [0503118], Station #8, Sample Date: 9/15/2005 10:00:00 AM

NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence

ORDER: TAXA	NF	RM	SG
COLEOPTERA			
Dubiraphia	21	2	
Enochrus			1
Macronychus glabratus			2
Paracymus	2	2	1
Scirtidae		1	1
Stenelmis			1
Tropisternus		1	
DIPTERA			
Ablabesmyia	3	1	1
Ceratopogoninae	6	1	2
Chironomus	22		
Cladotanytarsus	24	1	
Corynoneura		1	
Cricotopus bicinctus		4	1
Cricotopus/Orthocladius			6
Cryptochironomus	2		
Cryptotendipes	7	1	
Dicrotendipes	10	29	138
Diptera	1		
Forcipomyiinae	1		11
Glyptotendipes		1	2
Hemerodromia			1
Labrundinia	1	1	
Nanocladius	1	1	4
Nilothauma			1
Parachironomus			1
Paracladopelma	1		
Paralauterborniella	4		
Paratendipes	1		
Polypedilum convictum grp		5	
Polypedilum halterale grp	5		
Polypedilum illinoense grp		1	1
Polypedilum scalaenum grp	6	1	1
Procladius	13	1	
Pseudochironomus	5	1	5
Rheotanytarsus		30	11
Saetheria			1
Simulium		3	
Stelechomyia			5

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503118], Station #8, Sample Date: 9/15/2005 10:00:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Stempellinella	1		
Stenochironomus			1
Tabanus		1	
Tanytarsus	27	32	51
Thienemanniella		2	
Thienemannimyia grp.		8	12
Tipulidae			2
Tribelos			1
Zavrelimyia		2	
<b>EPHEMEROPTERA</b>			
Acerpenna	1	13	12
Caenis hilaris	1	3	1
Caenis latipennis	9	8	6
Callibaetis	1		
Fallceon		1	1
Hexagenia limbata	3		
Isonychia		1	1
Leptophlebiidae		10	1
Paracloeodes		14	13
Procloeon	8	2	1
Stenacron		1	
Stenonema integrum		1	
Stenonema terminatum		4	3
Tricorythodes	1	7	5
<b>HEMIPTERA</b>			
Belostoma	1	-99	
Corixidae	6	2	1
Trepobates		1	
Trichocorixa		1	
<b>LIMNOPHILA</b>			
Lymnaeidae			1
Pseudosuccinea		-99	
<b>MEGALOPTERA</b>			
Corydalis		-99	
<b>ODONATA</b>			
Argia	1	5	1
Boyeria		-99	
Gomphidae	10		
Gomphus	-99	-99	
Hetaerina		2	
Macromia	2	-99	

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503118], Station #8, Sample Date: 9/15/2005 10:00:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Neurocordulia		-99	
Progomphus obscurus	-99		
Stylurus	-99		
<b>TRICHOPTERA</b>			
Cheumatopsyche		3	5
Hydropsyche		4	
Nectopsyche	12	88	3
Oecetis	2	2	2
<b>TUBIFICIDA</b>			
Aulodrilus	25	1	
Branchiura sowerbyi	1		
Tubificidae	9	2	
<b>VENEROIDEA</b>			
Sphaeriidae		1	



**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503122], Station #9, Sample Date: 9/20/2005 1:45:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>COLEOPTERA</b>			
Berosus	1		
Dubiraphia	5	3	
Helichus lithophilus	1	2	
Macronychus glabratus			3
Paracymus		1	
Scirtidae		2	
Stenelmis			1
Tropisternus		-99	
<b>DIPTERA</b>			
Ablabesmyia		1	3
Axarus		1	
Ceratopogoninae	5		1
Chironomus	28		
Cladotanytarsus	32	1	
Corynoneura			1
Cricotopus/Orthocladius			3
Cryptochironomus	4		
Cryptotendipes	20		
Dicrotendipes	10	7	149
Forcipomyiinae	1		2
Glyptotendipes	1	2	3
Harnischia	1		
Hemerodromia			1
Labrundinia		4	
Larsia		5	5
Nanocladius	1	2	4
Parachironomus		1	
Paralauterborniella	10		
Paratendipes	1		
Polypedilum convictum grp			2
Polypedilum halterale grp	10		
Polypedilum illinoense grp	1		2
Polypedilum scalaenum grp	1		2
Procladius	41	-99	
Pseudochironomus			3
Rheocricotopus		1	
Rheotanytarsus		2	19
Simulium		5	2
Stelechomyia			4

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503122], Station #9, Sample Date: 9/20/2005 1:45:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Stempellinella	10		
Stenochironomus			2
Tanypus	1		
Tanytarsus	57	41	85
Thienemannimyia grp.		5	35
Tribelos			4
undescribed Empididae		1	
<b>EPHEMEROPTERA</b>			
Caenis hilaris	1	1	
Caenis latipennis	11	4	4
Callibaetis			1
Hexagenia limbata	4		
Leptophlebiidae	2	34	10
Paracloeodes			3
Procloeon	4	1	2
Pseudocloeon			1
Stenacron		1	
Stenonema terminatum			2
Tricorythodes		1	20
<b>HEMIPTERA</b>			
Corixidae	19		7
<b>LIMNOPHILA</b>			
Fossaria		1	
Physella	9	28	1
<b>MEGALOPTERA</b>			
Corydalus			-99
<b>ODONATA</b>			
Argia	3	17	10
Enallagma		2	
Gomphidae	1		
Gomphus		-99	
Hetaerina		14	2
Macromia		1	1
Progomphus obscurus	1		
<b>TRICHOPTERA</b>			
Cheumatopsyche		4	14
Hydropsyche		1	1
Nectopsyche	6	117	2
Oecetis	3	1	2
Polycentropodidae			1
<b>TRICLADIDA</b>			

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503122], Station #9, Sample Date: 9/20/2005 1:45:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Planariidae		1	
TUBIFICIDA			
Aulodrilus	12		
Branchiura sowerbyi	1	3	
Limnodrilus hoffmeisteri		1	
Tubificidae	6	5	
VENEROIDEA			
Sphaeriidae	18	20	-99

# **Aquid Invertebrate Database Bench Sheet Report**

**North Fabius R [0503123], Station #10, Sample Date: 9/21/2005 9:30:00 AM**

**NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>"HYDRACARINA"</b>			
Acarina	1		
<b>COLEOPTERA</b>			
Dubiraphia	14	3	
Helichus lithophilus		1	
Laccophilus		1	
Scirtidae		8	3
Stenelmis		2	
Tropisternus		1	
<b>DECAPODA</b>			
Orconectes virilis		-99	
<b>DIPTERA</b>			
Ablabesmyia	1	2	
Ceratopogoninae	2		
Chironomus	17	1	1
Cladotanytarsus	32	3	10
Cricotopus bicinctus	1		
Cricotopus/Orthocladius			11
Cryptochironomus	4		
Cryptotendipes	5		1
Dasyheleinae	1		
Dicrotendipes	18	8	72
Diptera	2	1	
Dolichopodidae	1		
Forcipomyiinae	1		1
Glyptotendipes		2	2
Hemerodromia			2
Labrundinia		6	
Larsia		3	2
Limonia	3		
Nanocladius		2	1
Parachironomus		1	
Paracladopelma			1
Paralauterborniella	2	2	
Polypedilum convictum grp		1	
Polypedilum halterale grp	10		
Polypedilum illinoense grp		2	
Polypedilum scalaenum grp	2		2
Procladius	15	2	
Rheotanytarsus		1	30

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503123], Station #10, Sample Date: 9/21/2005 9:30:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Saetheria		1	1
Simuliidae			1
Simulium			4
Stempellina	1		
Stempellinella	23	2	2
Stenochironomus			1
Stictochironomus	1		
Tabanidae		1	
Tanypus	3		
Tanytarsus	112	37	125
Thienemanniella			5
Thienemannimyia grp.		8	5
Tribelos		1	
Zavrelimyia			2
<b>EPHEMEROPTERA</b>			
Acerpenna			4
Baetidae			2
Baetis			4
Caenis hilaris	2		
Caenis latipennis	10	11	1
Heptageniidae			2
Leptophlebiidae	1	9	1
Paracloeodes		1	8
Procloeon	5	1	1
Stenacron		1	
Stenonema integrum			2
Stenonema terminatum		1	
Tricorythodes		3	1
<b>HEMIPTERA</b>			
Corixidae	1		
<b>LIMNOPHILA</b>			
Lymnaeidae		3	4
Physella	1	7	
<b>ODONATA</b>			
Argia		42	2
Gomphus	3	1	-99
Hetaerina		11	1
Macromia		-99	
Progomphus obscurus	-99	-99	
<b>TRICHOPTERA</b>			
Cheumatopsyche		6	7

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503123], Station #10, Sample Date: 9/21/2005 9:30:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Hydropsyche		5	6
Hydroptila			3
Nectopsyche	8	159	3
TUBIFICIDA			
Aulodrilus	4		
Branchiura sowerbyi	3	6	
Tubificidae	3	5	
VENEROIDEA			
Sphaeriidae	-99	23	-99

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503124], Station #11, Sample Date: 9/21/2005 12:15:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>COLEOPTERA</b>			
Dubiraphia	4	3	
Helichus lithophilus		2	
Scirtidae			2
<b>DIPTERA</b>			
Ablabesmyia	3		2
Ceratopogoninae	1	1	2
Chironomus	10		
Cladotanytarsus	29		9
Cricotopus bicinctus			3
Cricotopus/Orthocladius	2		12
Cryptotendipes	5		4
Dicrotendipes	55	5	45
Glyptotendipes		1	
Hemerodromia		1	3
Labrundinia	2	2	1
Larsia		2	
Nanocladius		2	1
Paracladopelma	1		
Paralauterborniella			2
Polypedilum convictum grp	2	1	4
Polypedilum halterale grp	3		1
Polypedilum illinoense grp		1	
Polypedilum scalaenum grp	5		1
Procladius	13	2	
Pseudochironomus	1		
Rheocricotopus			1
Rheotanytarsus	3	19	62
Simulium		3	
Stelechomyia			1
Stempellinella	12	1	4
Stenochironomus			6
Tanytarsus	69	16	64
Thienemanniella		1	3
Thienemannimyia grp.	1	5	11
Tipula	1		
<b>EPHEMEROPTERA</b>			
Acerpenna	2	1	4
Caenis hilaris	2		
Caenis latipennis	18	4	

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503124], Station #11, Sample Date: 9/21/2005 12:15:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Fallceon		2	4
Hexagenia limbata	-99		1
Isonychia		1	
Leptophlebiidae	4	7	3
Paracloeodes	3		3
Procloeon	3		3
Pseudocloeon		1	
Stenacron			1
Stenonema terminatum	1	2	1
Tricorythodes		2	2
<b>HEMIPTERA</b>			
Belostoma		-99	
Pelocoris			1
<b>LIMNOPHILA</b>			
Physella	2	2	-99
<b>ODONATA</b>			
Argia	2	91	7
Boyeria		1	
Enallagma	1	1	
Gomphus	5		-99
Hetaerina		51	
Macromia	-99	1	
Progomphus obscurus	1		
<b>TRICHOPTERA</b>			
Cheumatopsyche		1	
Hydropsyche		1	7
Hydroptila			2
Nectopsyche	28	159	1
Oecetis	4		
<b>TUBIFICIDA</b>			
Aulodrilus	12		2
Tubificidae	5		3
<b>VENEROIDEA</b>			
Sphaeriidae	2	1	2



# **Aquid Invertebrate Database Bench Sheet Report**

**North Fabius R [0503125], Station #12, Sample Date: 9/21/2005 3:00:00 PM**

**NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>"HYDRACARINA"</b>			
Acarina	2	1	1
<b>AMPHIPODA</b>			
Hyaella azteca		14	
<b>COLEOPTERA</b>			
Berosus	1	2	
Dubiraphia	8	8	
Helichus lithophilus		3	
Peltodytes	1		
Scirtidae		3	
<b>DIPTERA</b>			
Ablabesmyia	1	1	
Ceratopogoninae			1
Chironomus	3	3	1
Cladotanytarsus	17	2	3
Cricotopus bicinctus			2
Cricotopus/Orthocladius			2
Cryptochironomus	6		
Cryptotendipes	7	2	2
Dicrotendipes	97	15	121
Diptera		1	
Glyptotendipes		1	
Labrundinia		3	3
Larsia		2	
Nanocladius			3
Parachironomus			1
Parakiefferiella	1		
Paralauterborniella	1		
Paramerina		1	
Paratanytarsus		2	
Polypedilum convictum grp			2
Polypedilum illinoense grp		2	1
Polypedilum scalaenum grp			3
Procladius	14		1
Pseudochironomus	1		2
Rheotanytarsus		2	6
Simulium			1
Stelechomyia			1
Stempellinella	1	1	
Stenochironomus			7

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503125], Station #12, Sample Date: 9/21/2005 3:00:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Tabanus		1	
Tanytarsus	15	7	33
Thienemanniella			3
Thienemannimyia grp.		3	10
Tribelos			1
<b>EPHEMEROPTERA</b>			
Caenis hilaris	3		
Caenis latipennis	29	4	4
Callibaetis	23		1
Hexagenia limbata	1		
Leptophlebiidae	2	64	4
Paracloeodes	3		2
Procloeon	3		1
Tricorythodes	1		4
<b>HEMIPTERA</b>			
Corixidae	68		2
Mesovelia		4	
Trichocorixa	2		
<b>LIMNOPHILA</b>			
Lymnaeidae			-99
Physella		3	
<b>MEGALOPTERA</b>			
Sialis		1	
<b>ODONATA</b>			
Argia	5	34	5
Gomphus	-99	1	
Hetaerina		2	
Macromia	-99	-99	
Progomphus obscurus	-99		
<b>TRICHOPTERA</b>			
Cheumatopsyche		2	
Cynellus fraternus			2
Hydropsyche		3	6
Hydropsychidae			4
Nectopsyche	5	77	4
Oecetis	8		
Oxyethira	4		
<b>TRICLADIDA</b>			
Planariidae		1	
<b>TUBIFICIDA</b>			

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503125], Station #12, Sample Date: 9/21/2005 3:00:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Aulodrilus	17	2	1
Tubificidae	1	3	
VENEROIDEA			
Sphaeriidae	1	21	

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503127], Station #13, Sample Date: 9/23/2005 9:30:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>COLEOPTERA</b>			
Berosus		1	
Dubiraphia	3	4	1
Helichus lithophilus			1
Hydrophilus		-99	
Scirtidae		3	
Stenelmis		1	
<b>DECAPODA</b>			
Orconectes virilis		-99	
<b>DIPTERA</b>			
Ablabesmyia	6	2	4
Ceratopogoninae	2		1
Chironomus	68	1	
Cladotanytarsus	36		1
Cricotopus bicinctus	1	1	
Cricotopus/Orthocladius		3	
Cryptochironomus	11		3
Cryptotendipes	25	4	5
Dicrotendipes	63	82	34
Forcipomyiinae		2	
Hemerodromia			1
Labrundinia	1		7
Larsia		1	3
Nanocladius			2
Nilotanypus		1	
Parachironomus		2	1
Paracladopelma	2		
Parakiefferiella	1		
Paralauterborniella	13	2	1
Paratanytarsus			1
Pericoma		1	
Polypedilum halterale grp	5	1	1
Polypedilum illinoense grp	2		6
Procladius	10	1	2
Pseudochironomus	16	6	
Rheotanytarsus	1	3	1
Stempellinella	13		3
Stenochironomus		3	
Tabanus		1	
Tanytarsus	32	5	11

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503127], Station #13, Sample Date: 9/23/2005 9:30:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Thienemanniella	1		1
Thienemannimyia grp.	5	10	7
Tipula			2
<b>EPHEMEROPTERA</b>			
Acerpenna			3
Caenis hilaris	2		1
Caenis latipennis	12	10	5
Callibaetis	1	1	3
Fallceon		1	1
Hexagenia limbata	-99		1
Leptophlebiidae		28	3
Paracloeodes			2
Procloeon	3	2	1
Stenacron			4
Stenonema terminatum			1
Tricorythodes		1	
<b>HEMIPTERA</b>			
Corixidae	16	1	1
Rheumatobates		1	
Trichocorixa	1		
<b>LIMNOPHILA</b>			
Lymnaeidae		6	
Physella		13	1
<b>MESOGASTROPODA</b>			
Hydrobiidae			1
<b>ODONATA</b>			
Argia		42	15
Enallagma		10	
Gomphus	1	-99	-99
Hetaerina		3	
Macromia			-99
Progomphus obscurus	-99		
<b>TRICHOPTERA</b>			
Cheumatopsyche		3	10
Cynellus fraternus			3
Hydropsyche			5
Hydroptila			1
Nectopsyche	2	53	2
Oecetis		1	2
<b>TUBIFICIDA</b>			
Aulodrilus	1		6

**Aquid Invertebrate Database Bench Sheet Report**

**North Fabius R [0503127], Station #13, Sample Date: 9/23/2005 9:30:00 AM**

**NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Tubificidae	2		11
VENEROIDEA			
Sphaeriidae	1	14	

# Aquid Invertebrate Database Bench Sheet Report

North Fabius R [0503128], Station #14, Sample Date: 9/23/2005 11:30:00 AM

NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence

ORDER: TAXA	NF	RM	SG
"HYDRACARINA"			
Acarina	2		1
AMPHIPODA			
Hyaella azteca	2	3	2
COLEOPTERA			
Berosus	1		1
Dubiraphia	2	3	1
Helichus lithophilus		9	1
Hydroporus			1
Laccophilus		1	
Peltodytes	2		
Scirtidae		5	
Stenelmis			1
DIPTERA			
Ablabesmyia	8	5	3
Ceratopogoninae	8		
Chironomus	12		1
Cladotanytarsus	8		2
Cricotopus bicinctus	3	3	7
Cricotopus/Orthocladius			8
Cryptochironomus	4		1
Cryptotendipes	23		2
Dicrotendipes	38	7	162
Diptera			1
Glyptotendipes			2
Labrundinia	2	1	1
Nanocladius		3	
Paralauterborniella	6		
Paratanytarsus		1	
Polypedilum convictum grp			1
Polypedilum fallax grp			1
Polypedilum illinoense grp		1	1
Polypedilum scalaenum grp			1
Procladius	57		5
Pseudochironomus			2
Rheotanytarsus		5	2
Stempellina	2		
Stempellinella	11		7
Stenochironomus			3
Tabanidae	1		

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503128], Station #14, Sample Date: 9/23/2005 11:30:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Tanypus	1		
Tanytarsus	40	12	15
Thienemanniella			1
Thienemannimyia grp.		3	7
Tribelos			6
<b>EPHEMEROPTERA</b>			
Acerpenna		3	
Brachycercus	1		
Caenis hilaris	1		6
Caenis latipennis	11	1	16
Callibaetis	9		
Hexagenia limbata	2		
Isonychia		1	
Leptophlebiidae	26	92	18
Paracloeodes			2
Proclleon	12	1	3
Stenacron			3
Stenonema terminatum			2
Tricorythodes		3	3
<b>HEMIPTERA</b>			
Belostoma		-99	
Rheumatobates		2	
Trichocorixa	122		
<b>LIMNOPHILA</b>			
Physella	15	5	2
<b>MEGALOPTERA</b>			
Sialis	-99		
<b>ODONATA</b>			
Argia	4	12	10
Boyeria		-99	
Enallagma	5	1	
Gomphus	1	-99	
Hetaerina		5	
Macromia	-99		
Progomphus obscurus	-99		
<b>TRICHOPTERA</b>			
Cheumatopsyche		15	2
Hydropsyche		12	2
Hydroptila			7
Nectopsyche	6	40	4



**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503128], Station #14, Sample Date: 9/23/2005 11:30:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Oecetis	8		1
TUBIFICIDA			
Aulodrilus	1		
Tubificidae	1		
VENEROIDEA			
Sphaeriidae	10	17	1

# **Aquid Invertebrate Database Bench Sheet Report**

**North Fabius R [0503130], Station #15, Sample Date: 9/27/2005 3:45:00 PM**

**NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
AMPHIPODA			
Hyalella azteca	1	2	6
COLEOPTERA			
Berosus	1	3	
Dubiraphia	11	13	
Helichus lithophilus	1	7	
Hydroporus		1	
Macronychus glabratus			1
Scirtidae	1	2	12
Tropisternus		-99	
DECAPODA			
Orconectes virilis			-99
DIPTERA			
Ablabesmyia	5	2	2
Ceratopogoninae	1	1	1
Chironomus	38		
Cladotanytarsus	1		2
Corynoneura		2	
Cricotopus bicinctus	1	8	8
Cricotopus/Orthocladius			12
Cryptochironomus		1	
Dasyheleinae			5
Dicrotendipes	9	24	109
Forcipomyiinae			1
Glyptotendipes		1	1
Labrundinia	1	2	
Larsia			1
Nanocladius		5	
Parachironomus		1	
Paralauterborniella	2		
Paraphaenocladius			1
Paratanytarsus	1		
Polypedilum	1		
Polypedilum convictum grp			1
Polypedilum halterale grp			1
Polypedilum illinoense grp	3	8	2
Polypedilum scalaenum grp			2
Procladius	35	3	1
Rheocricotopus			1
Rheotanytarsus		5	1

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503130], Station #15, Sample Date: 9/27/2005 3:45:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Stempellinella	11	2	
Stenochironomus			4
Tabanus	-99		1
Tanytarsus	23	24	41
Thienemanniella	1		2
Thienemannimyia grp.		17	4
Tipula			-99
<b>EPHEMEROPTERA</b>			
Acerpenna		5	3
Baetis			1
Caenis hilaris		2	2
Caenis latipennis	92		4
Heptageniidae			3
Hexagenia limbata	23	7	1
Leptophlebiidae	5	52	15
Paracloeodes			4
Procloeon	1	2	
Stenacron			7
Stenonema terminatum			2
<b>HEMIPTERA</b>			
Belostoma		-99	
Corixidae	3		3
Pelocoris		1	
Trepobates	1		
<b>LIMNOPHILA</b>			
Lymnaeidae		3	10
Physella	30	36	12
<b>MEGALOPTERA</b>			
Sialis	-99	1	
<b>ODONATA</b>			
Argia		19	15
Boyeria		1	
Enallagma		2	
Gomphus	1		
Hetaerina		11	
Libellula	-99		
Macromia	1		
Progomphus obscurus	-99		
<b>TRICHOPTERA</b>			
Cheumatopsyche			26
Nectopsyche	3	12	

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503130], Station #15, Sample Date: 9/27/2005 3:45:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Oecetis	2	1	
Triaenodes		1	
TUBIFICIDA			
Aulodrilus		1	
Tubificidae	1	4	
UNIONIDA			
Unionidae		1	
VENEROIDEA			
Sphaeriidae	1	3	

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503131], Station #16, Sample Date: 9/28/2005 10:00:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>"HYDRACARINA"</b>			
Acarina		1	
<b>AMPHIPODA</b>			
Hyaella azteca		1	3
<b>COLEOPTERA</b>			
Berosus			1
Dubiraphia	8	2	2
Dytiscidae		1	
Enochrus			1
Helichus lithophilus		6	4
Laccophilus			1
Scirtidae		12	27
Tropisternus		1	
<b>DIPTERA</b>			
Ablabesmyia	9	9	5
Ceratopogoninae	14		
Chironomus	32	2	
Corynoneura	21	11	5
Cricotopus bicinctus	6	3	9
Cricotopus/Orthocladius	10	5	14
Cryptochironomus	4		1
Dicrotendipes	50	5	26
Forcipomyiinae		1	4
Hemerodromia		2	6
Labrundinia	5	8	7
Limonia			1
Nanocladius	1	3	2
Paracladopelma	1		
Phaenopsectra	1	3	
Polypedilum	1		
Polypedilum convictum grp	1	1	
Polypedilum fallax grp			1
Polypedilum halterale grp	5		
Polypedilum illinoense grp	6	13	3
Polypedilum scalaenum grp	5		2
Procladius	3	3	
Rheocricotopus	1	1	
Rheotanytarsus	4	5	4
Stempellinella	15	2	
Stenochironomus			40

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503131], Station #16, Sample Date: 9/28/2005 10:00:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Stictochironomus	1		
Stratiomys			-99
Tanytarsus	128	26	26
Thienemanniella	1	3	6
Thienemannimyia grp.	1	11	29
Tipula	1		1
Tribelos	3		
Zavreliomyia	3		
<b>EPHEMEROPTERA</b>			
Acerpenna		1	6
Caenis hilaris	2	3	1
Caenis latipennis	83	69	22
Callibaetis	1	1	
Fallceon		1	
Hexagenia limbata	3		
Isonychia		1	
Leptophlebiidae	6	50	1
Paracloeodes		2	
Procloeon	3		
Stenacron	2	6	3
Stenonema femoratum		1	
Stenonema terminatum		2	
<b>HEMIPTERA</b>			
Microvelia		4	5
Rheumatobates			1
Trepobates		1	
Trichocorixa	15		
<b>LIMNOPHILA</b>			
Lymnaeidae		2	4
Physella	27	18	22
<b>ODONATA</b>			
Argia	1	19	3
Calopteryx		2	1
Hetaerina		6	1
Progomphus obscurus	1		2
<b>TRICHOPTERA</b>			
Cheumatopsyche			11
Hydroptila			5
Nectopsyche	1	6	2
Oecetis	1		1
<b>TUBIFICIDA</b>			

**Aquid Invertebrate Database Bench Sheet Report**

**North Fabius R [0503131], Station #16, Sample Date: 9/28/2005 10:00:00 AM**

**NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Tubificidae	2		
VENEROIDEA			
Sphaeriidae		2	

**Aquid Invertebrate Database Bench Sheet Report****Little Fox R [0503129], Station #1, Sample Date: 9/27/2005 11:00:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
AMPHIPODA			
Hyaella azteca	2	10	2
COLEOPTERA			
Berosus			1
Dubiraphia	2	3	
Helichus lithophilus		2	1
Hydroporus		2	1
Macronychus glabratus			1
Scirtidae		14	3
DIPTERA			
Ablabesmyia	21	2	12
Anopheles		3	
Ceratopogoninae	1		
Chironomus	8		1
Cladotanytarsus	3		
Corynoneura	4	3	
Cricotopus bicinctus	1	2	1
Cryptochironomus	2		
Cryptotendipes	2		
Dicrotendipes	36	12	124
Diptera	1		1
Glyptotendipes			1
Hemerodromia			4
Labrundinia	3	1	2
Nemotelus		1	
Nilothauma		2	1
Paratanytarsus	1		2
Polypedilum illinoense grp		2	
Polypedilum scalaenum grp			1
Procladius	4		4
Pseudochironomus			2
Stelechomyia			1
Stempellinella	3		
Stenochironomus			18
Stictochironomus	4		
Tabanus	-99	1	
Tanytarsus	39	4	20
Thienemanniella		1	1
Thienemannimyia grp.	2	5	17
Tipula			1



**Aquid Invertebrate Database Bench Sheet Report****Little Fox R [0503129], Station #1, Sample Date: 9/27/2005 11:00:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Tribelos		1	18
<b>EPHEMEROPTERA</b>			
Acerpenna		1	2
Caenis hilaris	4	1	1
Caenis latipennis	56	15	31
Centroptilum		1	
Hexagenia limbata	1	-99	1
Isonychia			-99
Leptophlebiidae	56	156	28
Paracloeodes			1
Procloeon	1	1	
Stenacron	14	1	18
Stenonema femoratum	2		
Stenonema terminatum		1	1
<b>HEMIPTERA</b>			
Belostoma		-99	
Corixidae		1	
Microvelia		3	2
Ranatra fusca		1	
<b>LIMNOPHILA</b>			
Ancylidae	5		
Lymnaeidae		1	1
Physella	30	46	2
<b>ODONATA</b>			
Argia	2	9	12
Boyeria		1	
Calopteryx		1	
Enallagma		1	
Macromia		-99	
Progomphus obscurus	-99		
<b>TRICHOPTERA</b>			
Cheumatopsyche			6
Cynellus fraternus			4
Hydroptila	2		1
Nectopsyche	3	19	
Oecetis	8		
Oxyethira			1
<b>TUBIFICIDA</b>			
Aulodrilus	2		
Tubificidae	3	1	
<b>VENEROIDEA</b>			

**Aquid Invertebrate Database Bench Sheet Report**

**Little Fox R [0503129], Station #1, Sample Date: 9/27/2005 11:00:00 AM**

**NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Sphaeriidae		1	-99

# **Aquid Invertebrate Database Bench Sheet Report**

**South Fabius R [0503119], Station #1a, Sample Date: 9/16/2005 9:00:00 AM**

**CS = Coarse; NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>CS</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>"HYDRACARINA"</b>				
Acarina		13	2	1
<b>AMPHIPODA</b>				
Hyaella azteca			1	
<b>ARHYNCHOBDELLIDA</b>				
Erpobdellidae	-99		-99	
<b>COLEOPTERA</b>				
Berosus	5	4	3	2
Dubiraphia		10	17	6
Helichus basalis	1		1	
Helichus lithophilus	1		11	3
Macronychus glabratus			10	7
Peltodytes		1		
Scirtidae			3	1
Stenelmis	134	8	22	4
Uvarus				1
<b>DECAPODA</b>				
Orconectes luteus		-99		
Orconectes virilis			1	
<b>DIPTERA</b>				
Ablabesmyia	2	10	9	8
Ceratopogoninae		11		4
Chironomus		3		
Cladotanytarsus			1	
Cricotopus bicinctus		1	1	
Cryptochironomus			1	
Cryptotendipes		4	2	
Dicrotendipes	3	19		44
Diptera		1		1
Forcipomyiinae			2	5
Glyptotendipes				2
Labrundinia			5	1
Limonia				1
Nilotanypus	1			
Paralauterborniella		2	3	
Paratanytarsus			1	2
Polypedilum convictum grp	12	2	1	
Polypedilum illinoense grp	2		10	9
Polypedilum scalaenum grp				1
Procladius		8		

**Aquid Invertebrate Database Bench Sheet Report****South Fabius R [0503119], Station #1a, Sample Date: 9/16/2005 9:00:00 AM****CS = Coarse; NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>CS</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Pseudochironomus				10
Stenochironomus				3
Stictochironomus		1		
Tabanus	-99			
Tanypus		1		
Tanytarsus	3	9	39	53
Thienemannimyia grp.	2		3	1
Tribelos				3
Xenochironomus				3
<b>EPHEMEROPTERA</b>				
Acerpenna	5		1	15
Baetis	6			
Caenis hilaris	8	1	1	1
Caenis latipennis	4	28	3	4
Hexagenia limbata		3		
Isonychia	6			
Leptophlebiidae			3	4
Paracloeodes	1			
Procloeon		8	2	
Stenacron	2		6	8
Stenonema terminatum	54		3	1
Tricorythodes	228		16	8
<b>HEMIPTERA</b>				
Corixidae		150	13	5
Mesovelgia			1	
Neoplea			1	
<b>LIMNOPHILA</b>				
Ancylidae	2		1	
Lymnaeidae				5
Physella	2	2	44	7
<b>MESOGASTROPODA</b>				
Hydrobiidae		13		
<b>ODONATA</b>				
Argia	2	2	25	16
Basiaeschna janata				-99
Boyeria			-99	
Enallagma			6	
Epicordulia			1	
Gomphus		-99		
Libellulidae			1	
Macromia	1	1	-99	

**Aquid Invertebrate Database Bench Sheet Report****South Fabius R [0503119], Station #1a, Sample Date: 9/16/2005 9:00:00 AM****CS = Coarse; NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>CS</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Progomphus obscurus		-99		
Stylurus		-99		
<b>TRICHOPTERA</b>				
Cheumatopsyche	44		2	1
Chimarra	8			
Cynellus fraternus				1
Hydroptila			1	
Nectopsyche	1		14	1
Oecetis	46	1	7	21
Oxyethira		2		1
<b>TRICLADIDA</b>				
Planariidae			5	
<b>TUBIFICIDA</b>				
Aulodrilus			21	
Tubificidae	7	17	4	
<b>VENEROIDEA</b>				
Corbicula	30	4	2	
Sphaeriidae	5	1	3	2

# Aquid Invertebrate Database Bench Sheet Report

South Fabius R [0503120], Station #1b, Sample Date: 9/16/2005 9:00:00 AM

CS = Coarse; NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence

ORDER: TAXA	CS	NF	RM	SG
"HYDRACARINA"				
Acarina		6	1	
AMPHIPODA				
Hyaella azteca			1	3
COLEOPTERA				
Berosus		1	8	21
Dubiraphia		11	13	
Helichus lithophilus	1		9	2
Hydroporus		2		
Macronychus glabratus	1	1	7	4
Peltodytes		1		
Stenelmis	202	4	45	11
DECAPODA				
Orconectes luteus	-99			
DIPTERA				
Ablabesmyia		10	4	7
Ceratopogoninae		2	3	1
Chironomus		6		3
Cladotanytarsus		2	1	3
Corynoneura	1			
Cricotopus bicinctus				1
Cricotopus/Orthocladius	1			
Cryptochironomus	1	3		
Cryptotendipes		4	1	
Dicrotendipes	2	11	7	84
Forcipomyiinae				5
Glyptotendipes				1
Labrundinia	1		1	2
Larsia	1			
Limonia				1
Nanocladius			1	
Nilotanypus			1	
Paralauterborniella		1	1	
Paratanytarsus			1	
Polypedilum convictum grp	38		2	
Polypedilum illinoense grp	2	3	3	
Polypedilum scalaenum grp		1		2
Procladius		4		1
Pseudochironomus				25
Rheotanytarsus	2		1	

**Aquid Invertebrate Database Bench Sheet Report****South Fabius R [0503120], Station #1b, Sample Date: 9/16/2005 9:00:00 AM****CS = Coarse; NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>CS</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Stelechomyia				1
Stempellina		1		
Stempellinella		1		
Stenochironomus		1	1	3
Tabanus	1			
Tanytarsus	7	10	51	38
Thienemanniella	1			
Thienemannimyia grp.	16			4
Tribelos				16
<b>EPHEMEROPTERA</b>				
Acerpenna	6			2
Baetis	21		1	
Brachycercus		1		
Caenis hiliaris	7	1		1
Caenis latipennis	3	46	2	2
Callibaetis				2
Isonychia	4			
Leptophlebiidae	1			
Leucrocuta	1			
Procloeon		3	1	4
Stenacron	11			2
Stenonema femoratum				2
Stenonema terminatum	88			1
Tricorythodes	322	2	5	
<b>HEMIPTERA</b>				
Corixidae		98	3	6
Trichocorixa		1		1
<b>LIMNOPHILA</b>				
Lymnaeidae			1	
Physella	1		50	5
<b>MEGALOPTERA</b>				
Sialis			-99	
<b>MESOGASTROPODA</b>				
Hydrobiidae		4	3	1
<b>ODONATA</b>				
Argia	5		17	3
Boyeria			-99	
Didymops		-99		
Enallagma		1	1	
Gomphus		-99		
Hetaerina	2			

**Aquid Invertebrate Database Bench Sheet Report****South Fabius R [0503120], Station #1b, Sample Date: 9/16/2005 9:00:00 AM****CS = Coarse; NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>CS</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Libellulidae		1		
Macromia		-99		1
<b>TRICHOPTERA</b>				
Cheumatopsyche	109	1	2	4
Chimarra	4			
Cynellus fraternus				2
Hydropsyche	1			
Hydroptila	1			
Nectopsyche			10	
Oecetis	25	3	3	1
Oxyethira				7
<b>TRICLADIDA</b>				
Planariidae			9	
<b>TUBIFICIDA</b>				
Aulodrilus		6	1	
Tubificidae	4	23	1	
<b>VENEROIDEA</b>				
Corbicula	11	8	4	2
Sphaeriidae	2		3	1



**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0602606], Station #2, Sample Date: 4/12/2006 2:00:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>"HYDRACARINA"</b>			
Acarina	1	6	
<b>AMPHIPODA</b>			
Hyaella azteca		1	
<b>COLEOPTERA</b>			
Dubiraphia	6	1	
Hydroporus		1	
Macronychus glabratus			8
Paracymus	1		
Scirtidae		3	
Stenelmis	1	2	
<b>DIPTERA</b>			
Ablabesmyia	5	8	
Ceratopogoninae	1	8	5
Cladotanytarsus	2		3
Corynoneura			1
Cryptochironomus	5	1	1
Cryptotendipes	8	1	7
Dicrotendipes	6	8	57
Glyptotendipes	1	1	4
Hydrobaenus	1		
Labrundinia	2	10	
Limonia			1
Nanocladius		11	10
Parakiefferiella			3
Paralauterborniella	5	6	9
Paratanytarsus		1	
Phaenopsectra			1
Polypedilum convictum grp		1	4
Polypedilum halterale grp	4		
Polypedilum illinoense grp	1	1	2
Procladius	25		
Rheotanytarsus		3	2
Simulium			1
Stictochironomus	1		
Tanytarsus	105	159	137
Thienemanniella			5
Thienemannimyia grp.	6	55	23
Zavrelimyia	1		1
<b>EPHEMEROPTERA</b>			

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0602606], Station #2, Sample Date: 4/12/2006 2:00:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Acerpenna		13	
Caenis latipennis	5	7	
Hexagenia limbata	1		
Leptophlebia		1	
Stenacron	2	4	
Stenonema terminatum		3	
Tricorythodes	5	9	
<b>HEMIPTERA</b>			
Corixidae			1
Trichocorixa	145	1	27
<b>LIMNOPHILA</b>			
Fossaria			1
Physella	-99	-99	
<b>ODONATA</b>			
Argia	1	5	
Enallagma	1	4	
Gomphus	1	1	-99
Hetaerina		-99	
Libellulidae	1		
Macromia	-99	-99	1
<b>TRICHOPTERA</b>			
Nectopsyche	4	19	3
Oecetis	2		
Polycentropus	-99	1	
Pycnopsyche		1	
<b>TRICLADIDA</b>			
Planariidae	1	1	
<b>TUBIFICIDA</b>			
Aulodrilus	1		
Branchiura sowerbyi	2		
Limnodrilus cervix	1		
Limnodrilus hoffmeisteri	1		
Tubificidae	10	4	
<b>UNIONIDA</b>			
Unionidae	1		
<b>VENEROIDEA</b>			
Sphaeriidae	5	2	1

# **Aquid Invertebrate Database Bench Sheet Report**

**North Fabius R [0602605], Station #3, Sample Date: 4/12/2006 11:00:00 AM**

**CS = Coarse; NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>CS</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>"HYDRACARINA"</b>				
Acarina		1		
<b>AMPHIPODA</b>				
Hyaella azteca			4	3
<b>COLEOPTERA</b>				
Dubiraphia			2	2
Helichus basalis			1	
Macronychus glabratus				5
Scirtidae			3	
Stenelmis	113	1	2	
<b>DIPTERA</b>				
Ablabesmyia		4	17	1
Ceratopogoninae	4	3	25	5
Chironomus		1		
Cladotanytarsus		3		
Cnephia	8			
Corynoneura	2	2	2	
Cricotopus bicinctus	1			
Cricotopus/Orthocladius	2		3	2
Cryptochironomus	6	3	2	1
Cryptotendipes		24	4	4
Dicrotendipes	2	3	4	64
Glyptotendipes			1	8
Gonomyia				2
Harnischia				2
Labrundinia			10	
Nanocladius		2	8	8
Nilothauma				1
Paracladopelma		1		
Paralauterborniella		8	8	22
Paraphaenocladius			1	
Paratanytarsus				1
Phaenopsectra			2	
Polypedilum convictum grp	25	1		
Polypedilum halterale grp		36	1	
Polypedilum illinoense grp			7	1
Polypedilum scalaenum grp		11		
Procladius			1	1
Rheotanytarsus	8	1	1	1
Simuliidae	83			

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0602605], Station #3, Sample Date: 4/12/2006 11:00:00 AM****CS = Coarse; NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>CS</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Simulium	7			
Tabanus	1		1	
Tanytarsus	37	96	118	96
Thienemanniella				1
Thienemannimyia grp.	22	8	15	40
Tribelos				2
Zavrelimyia	2		1	
<b>EPHEMEROPTERA</b>				
Acerpenna	14		2	8
Baetisca lacustris	1			1
Caenis latipennis		4	14	1
Callibaetis			1	
Hexagenia			-99	2
Isonychia rufa	3			
Leptophlebia			1	-99
Stenonema femoratum	1			-99
Stenonema terminatum	28			6
Tricorythodes	172			8
<b>HEMIPTERA</b>				
Microvelia			1	
Nepa			1	
Ranatra nigra			-99	
Trichocorixa		67	7	2
<b>LIMNOPHILA</b>				
Fossaria			1	-99
Physella			1	
<b>MEGALOPTERA</b>				
Corydalus	4			
<b>ODONATA</b>				
Argia		1	7	1
Boyeria			1	
Calopteryx			1	
Enallagma			2	
Gomphus		-99	-99	
Macromia			-99	
<b>PLECOPTERA</b>				
Perlesta	2			
<b>TRICHOPTERA</b>				
Cheumatopsyche	8			-99
Cynellus fraternus				1
Hydropsyche	2			

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0602605], Station #3, Sample Date: 4/12/2006 11:00:00 AM****CS = Coarse; NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>CS</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Hydroptila	1			
Nectopsyche		5	55	5
Oecetis	12	3		
Potamyia flava	1			
<b>TUBIFICIDA</b>				
Aulodrilus		6		
Branchiura sowerbyi	8	1		
Enchytraeidae		2	1	
Limnodrilus hoffmeisteri	2		1	
Tubificidae	11	6	2	
<b>VENEROIDEA</b>				
Sphaeriidae	93	1		

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0602604], Station #4, Sample Date: 4/12/2006 8:30:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>"HYDRACARINA"</b>			
Acarina			2
<b>AMPHIPODA</b>			
Hyaella azteca			1
<b>COLEOPTERA</b>			
Dubiraphia	1	2	
Macronychus glabratus	1	1	
Stenelmis	2		2
<b>DIPTERA</b>			
Ablabesmyia	9		
Ceratopogoninae	3	1	3
Chironomus	2		
Cladotanytarsus	4		
Cricotopus bicinctus		1	2
Cricotopus/Orthocladius	2	4	11
Cryptochironomus	2		
Cryptotendipes	15		
Dicrotendipes	9	1	25
Glyptotendipes	1		
Gonomyia	1	1	
Nanocladius	2	7	1
Nilothauma		1	
Paralauterborniella	6	1	
Paratanytarsus			1
Pericoma	1	2	
Polypedilum convictum grp		4	8
Polypedilum halterale grp	2		2
Polypedilum illinoense grp	1	2	
Procladius	1		
Pseudochironomus	1		
Rheotanytarsus		5	9
Simuliidae		22	59
Stenochironomus	1		
Stictochironomus	1		
Tanytarsus	98	184	108
Thienemanniella			3
Thienemannimyia grp.	4	21	9
Zavrelimyia		2	4
<b>EPHEMEROPTERA</b>			
Acentrella		1	

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0602604], Station #4, Sample Date: 4/12/2006 8:30:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Acerpenna	5	53	12
Baetisca lacustris	4	4	1
Caenis latipennis	6	11	2
Hexagenia limbata	-99		
Isonychia rufa			1
Leptophlebia		1	
Stenonema pulchellum			1
Stenonema terminatum	5	2	5
Tricorythodes			5
<b>HEMIPTERA</b>			
Trichocorixa	144		
<b>LIMNOPHILA</b>			
Physella		-99	
<b>ODONATA</b>			
Argia	3	3	1
Gomphus	3	-99	
Macromia	2		
<b>PLECOPTERA</b>			
Hydroperla crosbyi			-99
Isoperla		1	1
Perlesta			2
<b>TRICHOPTERA</b>			
Hydropsyche			2
Nectopsyche	6	92	3
Oecetis			-99
<b>TUBIFICIDA</b>			
Branchiura sowerbyi	2	1	
Enchytraeidae	1	2	
Tubificidae		1	
<b>VENEROIDEA</b>			
Sphaeriidae	1		

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0602603], Station #5, Sample Date: 4/11/2006 2:45:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>"HYDRACARINA"</b>			
Acarina			1
<b>COLEOPTERA</b>			
Berosus			1
Dubiraphia	2	1	
Dytiscidae		1	
Macronychus glabratus	1		
Scirtidae		1	
Stenelmis			5
<b>DIPTERA</b>			
Ablabesmyia	3	4	
Ceratopogoninae	7	2	2
Chrysops		1	
Cladotanytarsus	11		
Corynoneura	1		
Cricotopus/Orthocladius	1	2	22
Cryptochironomus	10		1
Cryptotendipes	39		
Dicrotendipes	12	2	54
Diptera	4		
Glyptotendipes			4
Hydrobaenus	1		1
Labrundinia		2	
Nanocladius	1	2	
Paracladopelma	6		1
Paralauterborniella	12	1	
Pericoma	1		1
Polypedilum	1		
Polypedilum convictum grp			1
Polypedilum halterale grp	34		
Polypedilum illinoense grp		1	
Polypedilum scalaenum grp	12		
Procladius	1		
Pseudochironomus	2		10
Rheotanytarsus	1	3	5
Simulium		2	2
Tanytarsus	58	86	109
Thienemanniella	1		
Thienemannimyia grp.	1	23	20
Tribelos			1



**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0602603], Station #5, Sample Date: 4/11/2006 2:45:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>EPHEMEROPTERA</b>			
Acerpenna		41	50
Baetisca lacustris		-99	4
Caenis latipennis	14	38	5
Hexagenia limbata	2		
Leptophlebia		2	
Stenacron			4
Stenonema femoratum	1		2
Stenonema pulchellum			5
Stenonema terminatum	1	1	10
Tricorythodes		1	
<b>HEMIPTERA</b>			
Trichocorixa	8	2	
<b>LIMNOPHILA</b>			
Fossaria		2	
Physella		-99	
<b>ODONATA</b>			
Argia		2	
Gomphus	3	-99	
Macromia	2	-99	
<b>PLECOPTERA</b>			
Isoperla		-99	
Neoperla			1
Perlesta		1	3
<b>TRICHOPTERA</b>			
Cynellus fraternus			1
Hydroptila			5
Isonychia		1	
Nectopsyche	11	127	
Oecetis			1
Pycnopsyche		-99	
<b>TUBIFICIDA</b>			
Limnodrilus hoffmeisteri	1		1
Tubificidae	1		

# **Aquid Invertebrate Database Bench Sheet Report**

**North Fabius R [0602601], Station #6a, Sample Date: 4/11/2006 11:00:00 AM**

**NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>"HYDRACARINA"</b>			
Acarina			2
<b>AMPHIPODA</b>			
Hyaella azteca		-99	
<b>COLEOPTERA</b>			
Berosus		1	
Dubiraphia	2	2	
Helichus basalis		1	
Macronychus glabratus		1	3
Scirtidae		1	1
<b>DIPTERA</b>			
Ablabesmyia	12	5	
Ceratopogoninae	3	3	4
Chrysops	1		
Cladotanytarsus	4		
Cnephia	1		2
Cricotopus/Orthocladius			6
Cryptochironomus	5		
Cryptotendipes	15		
Dicrotendipes	20	3	76
Glyptotendipes			1
Hemerodromia			1
Hydrobaenus		1	1
Labrundinia		2	
Mesosmittia	1		
Nanocladius	1	2	1
Parakiefferiella			1
Paralauterborniella	33	4	
Paratendipes	2		
Pericoma	2		
Polypedilum convictum grp		2	
Polypedilum halterale grp	5		
Polypedilum scalaenum grp	10		
Procladius	1		
Pseudochironomus	1		5
Pseudosmittia			1
Rheotanytarsus		3	1
Simulium		1	
Stenochironomus			1
Tanytarsus	119	81	131

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0602601], Station #6a, Sample Date: 4/11/2006 11:00:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Thienemannimyia grp.	5	16	19
Zavreliomyia		2	3
<b>EPHEMEROPTERA</b>			
Acentrella		1	1
Acerpenna		12	3
Baetisca lacustris	3	5	7
Caenis latipennis	63	48	11
Caenis punctata	1		
Hexagenia limbata	4		
Leptophlebia	1	4	
Stenacron		1	3
Stenonema femoratum			1
Stenonema terminatum		-99	2
Tricorythodes	1	2	3
<b>HEMIPTERA</b>			
Belostoma		-99	
Trichocorixa	15	2	
<b>LIMNOPHILA</b>			
Physella		-99	
<b>MEGALOPTERA</b>			
Corydalus			-99
Sialis		-99	
<b>ODONATA</b>			
Argia	1	4	
Gomphus	4	1	-99
Libellula		2	
Macromia	-99	-99	
<b>PLECOPTERA</b>			
Hydroperla crosbyi			-99
Isoperla		1	
Perlesta		3	1
<b>TRICHOPTERA</b>			
Cheumatopsyche		1	1
Hydroptila			1
Nectopsyche	22	100	6
Oecetis	1		1
Pycnopsyche			-99
<b>TUBIFICIDA</b>			
Branchiura sowerbyi	1		
Enchytraeidae	1		

**Aquid Invertebrate Database Bench Sheet Report**

**North Fabius R [0602601], Station #6a, Sample Date: 4/11/2006 11:00:00 AM**

**NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
VENEROIDEA			
Sphaeriidae	3	1	

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0602602], Station #6b, Sample Date: 4/11/2006 11:00:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>"HYDRACARINA"</b>			
Acarina			2
<b>COLEOPTERA</b>			
Dubiraphia	2	1	
Helichus basalis		1	
Macronychus glabratus	3		
Peltodytes	1		
Scirtidae			1
Stenelmis			1
<b>DIPTERA</b>			
Ablabesmyia	8		
Ceratopogoninae	8	1	2
Cladotanytarsus	3		
Cnephia		7	10
Cricotopus/Orthocladius	4	8	23
Cryptochironomus	8	1	
Cryptotendipes	19		
Dicrotendipes	15	8	155
Glyptotendipes			1
Gonomyia			2
Hemerodromia			1
Hydrobaenus	3		2
Labrundinia	1	1	1
Lopescladius	1		
Nanocladius	3	3	6
Nilothauma			1
Orthocladius (Euorthocladius)		1	
Paracladopelma	1		
Paralauterborniella	23		
Parametriocnemus			3
Pericoma		1	
Polypedilum			1
Polypedilum convictum grp		1	1
Polypedilum halterale grp	3		
Polypedilum scalaenum grp	2		
Rheotanytarsus		7	7
Simulium			2
Stenochironomus			1
Tanytarsus	78	86	88
Thienemanniella		2	1

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0602602], Station #6b, Sample Date: 4/11/2006 11:00:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Thienemannimyia grp.	2	25	16
<b>EPHEMEROPTERA</b>			
Acerpenna	1	24	13
Baetisca lacustris	1	3	6
Caenis latipennis	31	29	10
Caenis punctata	1		
Hexagenia limbata	6		
Leptophlebia		1	1
Stenacron	1		
Stenonema pulchellum		1	6
Stenonema terminatum	1	1	3
Tricorythodes		2	2
<b>HEMIPTERA</b>			
Trichocorixa	38		
<b>LIMNOPHILA</b>			
Fossaria	1		
Physella	-99		
<b>ODONATA</b>			
Argia	1	8	1
Gomphus	2		
Hetaerina		-99	
Macromia	-99	1	
<b>PLECOPTERA</b>			
Perlesta		1	1
<b>TRICHOPTERA</b>			
Hydropsyche			1
Hydroptila			2
Nectopsyche	27	121	2
Oecetis		1	
<b>TUBIFICIDA</b>			
Limnodrilus hoffmeisteri	1		
Tubificidae	7		
<b>VENEROIDEA</b>			
Sphaeriidae	3		1

# Aquid Invertebrate Database Bench Sheet Report

North Fabius R [0602599], Station #7, Sample Date: 3/30/2006 10:00:00 AM

NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence

ORDER: TAXA	NF	RM	SG
"HYDRACARINA"			
Acarina	1		9
COLEOPTERA			
Berosus		1	
Dineutus		-99	
Dubiraphia	2	6	
Laccophilus		1	
Scirtidae		6	3
Stenelmis	1		
DECAPODA			
Orconectes	-99		
DIPTERA			
Ceratopogoninae	5	10	3
Chironomus	2		
Chrysops		3	
Cladotanytarsus	9		
Corynoneura		1	2
Cricotopus bicinctus	3	8	44
Cricotopus/Orthocladius	4	10	52
Cryptochironomus	3	1	
Cryptotendipes	12		
Dicrotendipes	12	6	90
Ephydriidae			2
Gonomyia		1	5
Harnischia	1		
Hydrobaenus	1	6	3
Nanocladius		7	3
Paracladopelma	3		
Parakiefferiella			10
Paralauterborniella	9		
Paraphaenocladius		1	3
Paratanytarsus	1		
Polypedilum convictum grp		1	
Polypedilum halterale grp	1		
Polypedilum illinoense grp		1	
Procladius	7		
Rheocricotopus			1
Rheotanytarsus		4	2
Simulium		3	
Tanytarsus	208	55	24

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0602599], Station #7, Sample Date: 3/30/2006 10:00:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Thienemanniella	2	7	15
Thienemannimyia grp.		24	19
Zavrelimyia		13	4
<b>EPHEMEROPTERA</b>			
Acerpenna		19	3
Baetisca lacustris	-99	2	10
Caenis latipennis	32	31	1
Hexagenia limbata	2		
Leptophlebia	2	12	6
Stenacron			1
Stenonema terminatum		3	1
<b>HEMIPTERA</b>			
Trichocorixa	3	2	
<b>LIMNOPHILA</b>			
Fossaria		2	2
Physella	1	1	4
<b>MEGALOPTERA</b>			
Corydalus			1
Sialis	-99		
<b>ODONATA</b>			
Argia		13	
Gomphidae	1		
Gomphus	-99	1	
Hetaerina		-99	
Macromia	-99	-99	-99
Progomphus obscurus	-99		
<b>PLECOPTERA</b>			
Hydroperla crosbyi			-99
Perlesta		1	
<b>TRICHOPTERA</b>			
Hydropsyche		1	2
Nectopsyche	2	51	3
Oecetis	2	1	2
Pycnopsyche		-99	
<b>TUBIFICIDA</b>			
Branchiura sowerbyi		4	
Enchytraeidae		7	1
Tubificidae	1	1	
<b>VENEROIDEA</b>			
Sphaeriidae	4	3	



**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0602600], Station #8, Sample Date: 3/30/2006 1:30:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>"HYDRACARINA"</b>			
Acarina		4	
<b>COLEOPTERA</b>			
Berosus		1	
Dineutus	-99		
Dubiraphia	3	1	
Hydroporus	1		
Macronychus glabratus		1	
Peltodytes	1	1	
Stenelmis		1	
<b>DIPTERA</b>			
Ablabesmyia	2	2	
Ceratopogoninae	13	3	
Chaoborus	1		
Chironomus	3		
Cladotanytarsus	6		
Cnephia		2	1
Corynoneura		2	3
Cricotopus bicinctus	10	48	64
Cricotopus/Orthocladius	6	25	91
Cryptochironomus	13		1
Cryptotendipes	8		
Dicrotendipes	20	26	68
Diptera	1	1	
Gonomyia	3	1	
Hydrobaenus	1	2	1
Labrundinia		1	
Nanocladius			5
Ormosia	7	1	
Parakiefferiella			2
Paralauterborniella	15		
Paraphaenocladius		3	
Paratanytarsus		2	
Pericoma	2		
Polypedilum convictum grp			1
Polypedilum halterale grp	15		1
Polypedilum illinoense grp	1	1	1
Polypedilum scalaenum grp	2		
Procladius	2		
Pseudochironomus	2		1

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0602600], Station #8, Sample Date: 3/30/2006 1:30:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Rheocricotopus			1
Rheotanytarsus		5	9
Simulium		2	2
Tanytarsus	117	84	22
Thienemanniella		10	25
Thienemannimyia grp.	3	19	4
Zavrelimyia		7	1
<b>EPHEMEROPTERA</b>			
Acerpenna		12	1
Baetisca lacustris	-99	5	2
Caenis latipennis	30	30	1
Hexagenia limbata	9		
Leptophlebia	-99	6	2
Stenonema terminatum		4	1
<b>HEMIPTERA</b>			
Trichocorixa	10	12	
<b>LIMNOPHILA</b>			
Fossaria	1		
Physella	-99		
<b>ODONATA</b>			
Gomphus	2	1	
<b>PLECOPTERA</b>			
Isoperla			1
Perlidae		5	
<b>TRICHOPTERA</b>			
Nectopsyche	4	34	5
Oecetis	1		
<b>TUBIFICIDA</b>			
Branchiura sowerbyi	2		
Enchytraeidae	2	1	
Ilyodrilus templetoni		1	
Limnodrilus hoffmeisteri	1		
Tubificidae	7		
<b>VENEROIDEA</b>			
Sphaeriidae	5	3	

# **Aquid Invertebrate Database Bench Sheet Report**

**North Fabius R [0602597], Station #9a, Sample Date: 3/29/2006 2:30:00 PM**

**NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>"HYDRACARINA"</b>			
Acarina			1
<b>AMPHIPODA</b>			
Hyaella azteca		1	
<b>COLEOPTERA</b>			
Dineutus		-99	
Dubiraphia	3	3	
Scirtidae		10	
Stenelmis	1		
Tropisternus		-99	
<b>DIPTERA</b>			
Ablabesmyia	1	4	
Ceratopogoninae	9	9	3
Chironomus	1		
Chrysops	1	2	1
Cladotanytarsus	8	1	
Corynoneura	1		
Cricotopus bicinctus	10	12	13
Cricotopus/Orthocladius	2	6	4
Cryptochironomus	14	1	1
Cryptotendipes	6	2	
Dicrotendipes	46	13	30
Ephydriidae	1	-99	
Gonomyia	3	4	
Hemerodromia	1		
Hydrobaenus	4	1	1
Ormosia		7	1
Paralauterborniella	4		
Paraphaenocladius	1	4	
Paratanytarsus		1	
Pericoma	5	3	
Polypedilum halterale grp	13		
Polypedilum illinoense grp			1
Polypedilum scalaenum grp		1	
Procladius	7	2	
Pseudochironomus	1		
Rheocricotopus		1	
Rheotanytarsus		2	
Tanytarsus	67	36	1
Thienemanniella		1	3

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0602597], Station #9a, Sample Date: 3/29/2006 2:30:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Thienemannimyia grp.	1	9	
Tipula		1	
Zavreliomyia		2	
<b>EPHEMEROPTERA</b>			
Acerpenna		3	
Baetisca lacustris		4	
Caenis latipennis	28	11	1
Leptophlebia	13	18	1
<b>HEMIPTERA</b>			
Trichocorixa	33	23	
<b>LIMNOPHILA</b>			
Fossaria	4	6	3
Physella	3	2	1
<b>MEGALOPTERA</b>			
Corydalus		-99	
<b>ODONATA</b>			
Argia	2	4	
Calopteryx		1	
Hetaerina		2	
Libellula	2	-99	
Macromia		1	
Progomphus obscurus	-99		
<b>TRICHOPTERA</b>			
Cheumatopsyche	1	-99	2
Nectopsyche	8	4	47
Polycentropodidae	1		
<b>TUBIFICIDA</b>			
Branchiura sowerbyi	2		
Enchytraeidae		3	1
Limnodrilus claparedianus	2		
Limnodrilus hoffmeisteri	2		
Tubificidae	7	2	
<b>VENEROIDEA</b>			
Sphaeriidae	2	44	

# Aquid Invertebrate Database Bench Sheet Report

North Fabius R [0602598], Station #9b, Sample Date: 3/29/2006 2:30:00 PM

NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence

ORDER: TAXA	NF	RM	SG
COLEOPTERA			
Dubiraphia		1	
Enochrus			1
Helichus lithophilus		2	1
Macronychus glabratus			1
Scirtidae		1	1
Stenelmis	1		
Tropisternus		-99	
DIPTERA			
Ablabesmyia	1	4	
Ceratopogoninae	13	1	
Chironomus	2		
Cladotanytarsus	12	1	
Corynoneura			1
Cricotopus bicinctus	7	32	28
Cricotopus/Orthocladius	1	5	5
Cryptochironomus	6		
Cryptotendipes	18		
Dicrotendipes	28	37	23
Diplocladius			1
Glyptotendipes			2
Gonomyia		1	3
Hydrobaenus	3		1
Labrundinia		1	
Nanocladius		20	
Paracladopelma	1		
Parakiefferiella	1		
Paralauterborniella	18		1
Paraphaenocladius		1	
Pericoma	1		
Phaenopsectra			1
Polypedilum convictum grp		1	
Polypedilum halterale grp	67		
Polypedilum illinoense grp		1	
Polypedilum scalaenum grp	11		
Procladius	7	1	
Pseudochironomus		1	
Rheotanytarsus		6	
Saetheria			1
Simulium		1	

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0602598], Station #9b, Sample Date: 3/29/2006 2:30:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Stenochironomus			1
Tanypus	1		
Tanytarsus	94	128	3
Thienemanniella		9	7
Thienemannimyia grp.		23	4
Tipula		-99	
undescribed Empididae		2	
Zavrelimyia		25	1
<b>EPHEMEROPTERA</b>			
Acerpenna		4	
Baetisca lacustris		-99	
Caenis latipennis	19	11	1
Hexagenia limbata	1		
Leptophlebia	2	11	8
Tricorythodes		1	
<b>HEMIPTERA</b>			
Pelocoris		-99	
Trichocorixa	3	1	
<b>LIMNOPHILA</b>			
Fossaria	1	1	6
<b>ODONATA</b>			
Argia	2	8	
Gomphus	1		
Hetaerina		1	
<b>TRICHOPTERA</b>			
Hydropsyche			-99
Hydroptila		2	
Nectopsyche	1	19	1
Oecetis	1		
<b>TUBIFICIDA</b>			
Aulodrilus		1	
Branchiura sowerbyi		2	
Enchytraeidae	1		
Limnodrilus hoffmeisteri	1		
Tubificidae	4		
<b>VENEROIDEA</b>			
Sphaeriidae	2	18	

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0602596], Station #10, Sample Date: 3/29/2006 12:00:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
AMPHIPODA			
Hyaella azteca		1	
COLEOPTERA			
Agabus		1	
Berosus	1		
Dineutus		-99	
Peltodytes		3	
Scirtidae			1
Tropisternus		-99	
DIPTERA			
Ablabesmyia	4	1	
Ceratopogoninae	17	10	
Chironomus	2		
Chrysops	2	1	
Cladotanytarsus	6		
Corynoneura			2
Cricotopus bicinctus	22	16	29
Cricotopus/Orthocladius	10	5	36
Cryptochironomus	7	2	
Cryptotendipes	3		
Dicrotendipes	48	33	42
Diptera		2	
Eukiefferiella			1
Gonomyia		2	
Hydrobaenus			1
Limonia			1
Ormosia	7	3	
Paracladopelma	1		
Parakiefferiella		1	
Paralauterborniella	9		
Paraphaenocladius		7	1
Paratanytarsus	1	2	
Paratendipes	4		
Pericoma	1	1	
Polypedilum convictum grp	1	1	3
Polypedilum halterale grp	11		
Polypedilum illinoense grp			1
Polypedilum scalaenum grp	8		
Procladius	6		
Rheocricotopus			1

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0602596], Station #10, Sample Date: 3/29/2006 12:00:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Rheotanytarsus	1	3	1
Tanytarsus	72	63	11
Thienemanniella	1	4	5
Thienemannimyia grp.	2	4	1
Zavreliomyia		4	2
<b>EPHEMEROPTERA</b>			
Acerpenna		2	
Caenis latipennis	12	10	1
Hexagenia limbata	2	2	
Leptophlebia	3	17	5
Stenacron			1
<b>HEMIPTERA</b>			
Microvelia		1	
Sigara	2		
Trichocorixa	34	123	3
<b>LIMNOPHILA</b>			
Fossaria	9	16	1
<b>ODONATA</b>			
Argia	1	2	
Gomphus	1	1	
<b>PLECOPTERA</b>			
Hydroperla crosbyi			1
Isoperla	1		
<b>TRICHOPTERA</b>			
Cheumatopsyche			1
Hydropsyche	-99		1
Hydroptila	1		
Nectopsyche	6	15	1
<b>TUBIFICIDA</b>			
Enchytraeidae	8	7	
Limnodrilus hoffmeisteri	1		
Tubificidae	7	1	
<b>VENEROIDEA</b>			
Sphaeriidae	4	1	



# **Aquid Invertebrate Database Bench Sheet Report**

**North Fabius R [0602595], Station #11, Sample Date: 3/29/2006 9:15:00 AM**

**NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>"HYDRACARINA"</b>			
Acarina			1
<b>AMPHIPODA</b>			
Hyaella azteca		8	
<b>COLEOPTERA</b>			
Berosus	2	2	
Dineutus	1		
Dubiraphia	3	2	
Helichus lithophilus		2	
Macronychus glabratus		1	1
Neoporus		2	
Peltodytes	2	3	1
Scirtidae		1	
<b>DIPTERA</b>			
Ablabesmyia	3	2	
Ceratopogoninae	7	8	
Chrysops	1	-99	
Cladotanytarsus	3		1
Corynoneura			5
Cricotopus bicinctus	6	57	46
Cricotopus/Orthocladius		10	36
Cryptochironomus	1	1	
Dicrotendipes	29	17	200
Diptera	2		
Gonomyia		2	
Hydrobaenus	2	2	1
Labrundinia			1
Larsia		1	
Limonia			4
Nanocladius		1	
Nemotelus	1		
Ormosia	2	1	
Parakiefferiella			2
Paralauterborniella	2		
Parametriocnemus			1
Paraphaenocladius	1	2	3
Paratanytarsus		3	1
Pericoma	6		
Pilaria		1	
Polypedilum convictum grp		1	1

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0602595], Station #11, Sample Date: 3/29/2006 9:15:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Polypedilum halterale grp	2		
Polypedilum illinoense grp		1	4
Polypedilum scalaenum grp	3		
Pseudochironomus		1	1
Rheotanytarsus			1
Stelechomyia			1
Tanytarsus	12	22	20
Thienemanniella		5	11
Thienemannimyia grp.	1	7	3
Tipula		1	
Zavrelimyia	2	4	
<b>EPHEMEROPTERA</b>			
Acerpenna		2	3
Baetisca lacustris			2
Caenis latipennis	33	44	1
Hexagenia limbata	3		
Leptophlebia	4	10	3
Stenacron	1		
Tricorythodes		1	
<b>HEMIPTERA</b>			
Sigara	1		
Trichocorixa	113	15	2
<b>LIMNOPHILA</b>			
Fossaria	1		
Physella	4	2	1
<b>ODONATA</b>			
Argia	3	5	1
Enallagma		5	
Gomphus	-99		
Macromia		-99	
Progomphus obscurus	-99		
<b>TRICHOPTERA</b>			
Cheumatopsyche	1	-99	2
Ironoquia		1	
Nectopsyche	4	51	2
<b>TUBIFICIDA</b>			
Aulodrilus	5		
Enchytraeidae	4		1
Limnodrilus claparedianus	1		
Tubificidae	12	2	1
<b>VENEROIDEA</b>			

**Aquid Invertebrate Database Bench Sheet Report**

**North Fabius R [0602595], Station #11, Sample Date: 3/29/2006 9:15:00 AM**

**NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Sphaeriidae	3	1	

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0602594], Station #12, Sample Date: 3/28/2006 2:30:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>AMPHIPODA</b>			
Hyaella azteca		28	
<b>COLEOPTERA</b>			
Dubiraphia	3	1	
Enochrus		1	
Helichus basalis			1
Helichus lithophilus			1
Hydroporus		1	
Laccophilus		1	
Neoporus		3	
Peltodytes		6	
Scirtidae		4	
<b>DIPTERA</b>			
Ablabesmyia	2	1	2
Axarus			3
Ceratopogoninae	17	2	
Chironomus	8		
Chrysops		1	
Cladotanytarsus	8		
Cricotopus bicinctus	8	11	5
Cricotopus/Orthocladius	5	12	
Cryptochironomus	11		
Cryptotendipes	4		
Dicrotendipes	75	21	9
Diplocladius		1	
Diptera	1	1	
Dolichopodidae	-99		
Glyptotendipes			1
Gonomyia		3	
Hydrobaenus	2	2	
Ormosia		1	
Paracladopelma	1		
Paralauterborniella	11		
Paraphaenocladius	4	8	
Paratanytarsus		1	
Pericoma	3	1	
Polypedilum	1		
Polypedilum convictum grp	2		
Polypedilum halterale grp	7		
Polypedilum scalaenum grp	9		

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0602594], Station #12, Sample Date: 3/28/2006 2:30:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Procladius		1	
Pseudochironomus	5		
Smittia	1		
Stictochironomus	3		
Tanytarsus	48	11	
Thienemanniella	1	1	
Thienemannimyia grp.	1	2	2
Tipula		1	
undescribed Empididae		1	
Zavrelimyia			1
<b>EPHEMEROPTERA</b>			
Acerpenna		1	
Baetisca lacustris		3	
Caenis latipennis	38	7	
Centroptilum		1	
Hexagenia limbata	5	-99	
Leptophlebia	2	38	20
Stenonema terminatum	-99		
Tricorythodes	1		
<b>HEMIPTERA</b>			
Trichocorixa	7	82	2
<b>LIMNOPHILA</b>			
Fossaria	3	12	1
Physella	1	19	
<b>ODONATA</b>			
Argia	1	3	
Calopterygidae			1
Enallagma	1		
Gomphus	-99		
Macromia		-99	
<b>TRICHOPTERA</b>			
Cheumatopsyche	8		
Hydropsyche	3	1	
Hydroptila	1		
Nectopsyche	26	8	
Oecetis	3		
<b>TUBIFICIDA</b>			
Aulodrilus	7	1	
Enchytraeidae	1	2	
Limnodrilus hoffmeisteri		3	

**Aquid Invertebrate Database Bench Sheet Report**

**North Fabius R [0602594], Station #12, Sample Date: 3/28/2006 2:30:00 PM**

**NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Tubificidae	2	4	
VENEROIDEA			
Sphaeriidae	-99	12	1

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0602593], Station #13, Sample Date: 3/28/2006 12:00:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
AMPHIPODA			
Hyalella azteca	19		3
COLEOPTERA			
Berosus	3		
Chaetarthria		1	1
Dubiraphia	7		1
Enochrus			1
Helichus lithophilus		1	
Hydroporus	2		
Laccophilus			1
Peltodytes	3	1	5
Scirtidae		2	4
Uvarus		1	
DECAPODA			
Orconectes	1		
DIPTERA			
Ablabesmyia	13	1	3
Ceratopogoninae	6	3	2
Chironomus	11		
Chrysops	1		
Clinotanytus	1		
Corynoneura		1	1
Cricotopus bicinctus	9	56	18
Cricotopus/Orthocladius	5	29	18
Cryptochironomus	2		
Cryptotendipes	1		
Dicrotendipes	47	27	27
Diptera		3	5
Dolichopodidae	1		
Gonomyia	2	1	2
Hemerodromia	1		
Hydrobaenus	4	7	
Nanocladius			2
Nemotelus	1		
Ormosia	2		1
Paralauterborniella	1		
Paraphaenocladius	1	4	3
Paratanytarsus	1	2	1
Pericoma	1		
Phaenopsectra			2

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0602593], Station #13, Sample Date: 3/28/2006 12:00:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Polypedilum convictum grp		3	1
Polypedilum illinoense grp		8	3
Procladius	5		
Pseudochironomus	2		
Rheotanytarsus		2	
Simulium		16	2
Tanytarsus	48	23	11
Thienemanniella		4	2
Thienemannimyia grp.		10	1
Zavrelimyia		1	
<b>EPHEMEROPTERA</b>			
Acerpenna		9	2
Baetisca lacustris			1
Caenis latipennis	40	4	
Callibaetis	1		
Hexagenia limbata	-99		
Leptophlebia	5	29	10
Stenacron		2	3
Stenonema terminatum	1	3	
<b>HEMIPTERA</b>			
Ranatra fusca		1	1
Trichocorixa	68	12	22
<b>LIMNOPHILA</b>			
Fossaria	2	2	1
Physella	1		
<b>ODONATA</b>			
Argia	5		
Enallagma	2		
<b>PLECOPTERA</b>			
Hydroperla crosbyi		1	
<b>TRICHOPTERA</b>			
Hydropsyche		2	
Hydroptila		1	1
Ironoquia		1	1
Nectopsyche	2	1	1
Pycnopsyche		-99	
<b>TUBIFICIDA</b>			
Enchytraeidae	2		1
Limnodrilus hoffmeisteri	1		
Tubificidae	2		



**Aquid Invertebrate Database Bench Sheet Report**

**North Fabius R [0602593], Station #13, Sample Date: 3/28/2006 12:00:00 PM**

**NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
VENEROIDEA			
Sphaeriidae	1		

# **Aquid Invertebrate Database Bench Sheet Report**

**North Fabius R [0503128], Station #14, Sample Date: 9/23/2005 11:30:00 AM**

**NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>"HYDRACARINA"</b>			
Acarina	2		1
<b>AMPHIPODA</b>			
Hyaella azteca	2	3	2
<b>COLEOPTERA</b>			
Berosus	1		1
Dubiraphia	2	3	1
Helichus lithophilus		9	1
Hydroporus			1
Laccophilus		1	
Peltodytes	2		
Scirtidae		5	
Stenelmis			1
<b>DIPTERA</b>			
Ablabesmyia	8	5	3
Ceratopogoninae	8		
Chironomus	12		1
Cladotanytarsus	8		2
Cricotopus bicinctus	3	3	7
Cricotopus/Orthocladius			8
Cryptochironomus	4		1
Cryptotendipes	23		2
Dicrotendipes	38	7	162
Diptera			1
Glyptotendipes			2
Labrundinia	2	1	1
Nanocladius		3	
Paralauterborniella	6		
Paratanytarsus		1	
Polypedilum convictum grp			1
Polypedilum fallax grp			1
Polypedilum illinoense grp		1	1
Polypedilum scalaenum grp			1
Procladius	57		5
Pseudochironomus			2
Rheotanytarsus		5	2
Stempellina	2		
Stempellinella	11		7
Stenochironomus			3
Tabanidae	1		

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503128], Station #14, Sample Date: 9/23/2005 11:30:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Tanypus	1		
Tanytarsus	40	12	15
Thienemanniella			1
Thienemannimyia grp.		3	7
Tribelos			6
<b>EPHEMEROPTERA</b>			
Acerpenna		3	
Brachycercus	1		
Caenis hilaris	1		6
Caenis latipennis	11	1	16
Callibaetis	9		
Hexagenia limbata	2		
Isonychia		1	
Leptophlebiidae	26	92	18
Paracloeodes			2
Proclleon	12	1	3
Stenacron			3
Stenonema terminatum			2
Tricorythodes		3	3
<b>HEMIPTERA</b>			
Belostoma		-99	
Rheumatobates		2	
Trichocorixa	122		
<b>LIMNOPHILA</b>			
Physella	15	5	2
<b>MEGALOPTERA</b>			
Sialis	-99		
<b>ODONATA</b>			
Argia	4	12	10
Boyeria		-99	
Enallagma	5	1	
Gomphus	1	-99	
Hetaerina		5	
Macromia	-99		
Progomphus obscurus	-99		
<b>TRICHOPTERA</b>			
Cheumatopsyche		15	2
Hydropsyche		12	2
Hydroptila			7
Nectopsyche	6	40	4

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503128], Station #14, Sample Date: 9/23/2005 11:30:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Oecetis	8		1
TUBIFICIDA			
Aulodrilus	1		
Tubificidae	1		
VENEROIDEA			
Sphaeriidae	10	17	1

# **Aquid Invertebrate Database Bench Sheet Report**

**North Fabius R [0503130], Station #15, Sample Date: 9/27/2005 3:45:00 PM**

**NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
AMPHIPODA			
Hyalella azteca	1	2	6
COLEOPTERA			
Berosus	1	3	
Dubiraphia	11	13	
Helichus lithophilus	1	7	
Hydroporus		1	
Macronychus glabratus			1
Scirtidae	1	2	12
Tropisternus		-99	
DECAPODA			
Orconectes virilis			-99
DIPTERA			
Ablabesmyia	5	2	2
Ceratopogoninae	1	1	1
Chironomus	38		
Cladotanytarsus	1		2
Corynoneura		2	
Cricotopus bicinctus	1	8	8
Cricotopus/Orthocladius			12
Cryptochironomus		1	
Dasyheleinae			5
Dicrotendipes	9	24	109
Forcipomyiinae			1
Glyptotendipes		1	1
Labrundinia	1	2	
Larsia			1
Nanocladius		5	
Parachironomus		1	
Paralauterborniella	2		
Paraphaenocladius			1
Paratanytarsus	1		
Polypedilum	1		
Polypedilum convictum grp			1
Polypedilum halterale grp			1
Polypedilum illinoense grp	3	8	2
Polypedilum scalaenum grp			2
Procladius	35	3	1
Rheocricotopus			1
Rheotanytarsus		5	1

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503130], Station #15, Sample Date: 9/27/2005 3:45:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Stempellinella	11	2	
Stenochironomus			4
Tabanus	-99		1
Tanytarsus	23	24	41
Thienemanniella	1		2
Thienemannimyia grp.		17	4
Tipula			-99
<b>EPHEMEROPTERA</b>			
Acerpenna		5	3
Baetis			1
Caenis hilaris		2	2
Caenis latipennis	92		4
Heptageniidae			3
Hexagenia limbata	23	7	1
Leptophlebiidae	5	52	15
Paracloeodes			4
Procloeon	1	2	
Stenacron			7
Stenonema terminatum			2
<b>HEMIPTERA</b>			
Belostoma		-99	
Corixidae	3		3
Pelocoris		1	
Trepobates	1		
<b>LIMNOPHILA</b>			
Lymnaeidae		3	10
Physella	30	36	12
<b>MEGALOPTERA</b>			
Sialis	-99	1	
<b>ODONATA</b>			
Argia		19	15
Boyeria		1	
Enallagma		2	
Gomphus	1		
Hetaerina		11	
Libellula	-99		
Macromia	1		
Progomphus obscurus	-99		
<b>TRICHOPTERA</b>			
Cheumatopsyche			26
Nectopsyche	3	12	

**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503130], Station #15, Sample Date: 9/27/2005 3:45:00 PM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Oecetis	2	1	
Triaenodes		1	
TUBIFICIDA			
Aulodrilus		1	
Tubificidae	1	4	
UNIONIDA			
Unionidae		1	
VENEROIDEA			
Sphaeriidae	1	3	

# **Aquid Invertebrate Database Bench Sheet Report**

**North Fabius R [0503131], Station #16, Sample Date: 9/28/2005 10:00:00 AM**

**NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>"HYDRACARINA"</b>			
Acarina		1	
<b>AMPHIPODA</b>			
Hyaella azteca		1	3
<b>COLEOPTERA</b>			
Berosus			1
Dubiraphia	8	2	2
Dytiscidae		1	
Enochrus			1
Helichus lithophilus		6	4
Laccophilus			1
Scirtidae		12	27
Tropisternus		1	
<b>DIPTERA</b>			
Ablabesmyia	9	9	5
Ceratopogoninae	14		
Chironomus	32	2	
Corynoneura	21	11	5
Cricotopus bicinctus	6	3	9
Cricotopus/Orthocladius	10	5	14
Cryptochironomus	4		1
Dicrotendipes	50	5	26
Forcipomyiinae		1	4
Hemerodromia		2	6
Labrundinia	5	8	7
Limonia			1
Nanocladius	1	3	2
Paracladopelma	1		
Phaenopsectra	1	3	
Polypedilum	1		
Polypedilum convictum grp	1	1	
Polypedilum fallax grp			1
Polypedilum halterale grp	5		
Polypedilum illinoense grp	6	13	3
Polypedilum scalaenum grp	5		2
Procladius	3	3	
Rheocricotopus	1	1	
Rheotanytarsus	4	5	4
Stempellinella	15	2	
Stenochironomus			40



**Aquid Invertebrate Database Bench Sheet Report****North Fabius R [0503131], Station #16, Sample Date: 9/28/2005 10:00:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Stictochironomus	1		
Stratiomys			-99
Tanytarsus	128	26	26
Thienemanniella	1	3	6
Thienemannimyia grp.	1	11	29
Tipula	1		1
Tribelos	3		
Zavreliomyia	3		
<b>EPHEMEROPTERA</b>			
Acerpenna		1	6
Caenis hilaris	2	3	1
Caenis latipennis	83	69	22
Callibaetis	1	1	
Fallceon		1	
Hexagenia limbata	3		
Isonychia		1	
Leptophlebiidae	6	50	1
Paracloeodes		2	
Procloeon	3		
Stenacron	2	6	3
Stenonema femoratum		1	
Stenonema terminatum		2	
<b>HEMIPTERA</b>			
Microvelia		4	5
Rheumatobates			1
Trepobates		1	
Trichocorixa	15		
<b>LIMNOPHILA</b>			
Lymnaeidae		2	4
Physella	27	18	22
<b>ODONATA</b>			
Argia	1	19	3
Calopteryx		2	1
Hetaerina		6	1
Progomphus obscurus	1		2
<b>TRICHOPTERA</b>			
Cheumatopsyche			11
Hydroptila			5
Nectopsyche	1	6	2
Oecetis	1		1
<b>TUBIFICIDA</b>			

**Aquid Invertebrate Database Bench Sheet Report**

**North Fabius R [0503131], Station #16, Sample Date: 9/28/2005 10:00:00 AM**

**NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Tubificidae	2		
VENEROIDEA			
Sphaeriidae		2	

**Aquid Invertebrate Database Bench Sheet Report****Little Fox R [0602611], Station #1, Sample Date: 4/11/2006 11:05:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>"HYDRACARINA"</b>			
Acarina	2	1	
<b>AMPHIPODA</b>			
Hyaella azteca		30	
<b>COLEOPTERA</b>			
Berosus	1	2	1
Dubiraphia		3	
Helichus lithophilus			1
Laccophilus		1	
Macronychus glabratus			1
Peltodytes	4		
Scirtidae		2	
Tropisternus		-99	
<b>DECAPODA</b>			
Orconectes virilis		-99	
<b>DIPTERA</b>			
Ablabesmyia	5	3	1
Ceratopogoninae	2	1	
Chrysops		1	
Cladotanytarsus	2		
Cricotopus bicinctus	2	4	
Cricotopus/Orthocladius	15	14	34
Cryptochironomus	1		
Dicrotendipes	2	2	41
Diplocladius			1
Diptera			1
Gonomyia	2		
Hydrobaenus	15	18	17
Labrundinia	1	6	1
Paratanytarsus	1	5	3
Paratendipes	2		
Pericoma	2	1	
Phaenopsectra		1	1
Polypedilum illinoense grp		2	
Pseudochironomus			1
Pseudosmittia			2
Rheotanytarsus			1
Simulium	17	4	86
Tabanus	-99	-99	
Tanytarsus	5	8	29

**Aquid Invertebrate Database Bench Sheet Report****Little Fox R [0602611], Station #1, Sample Date: 4/11/2006 11:05:00 AM****NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Thienemannimyia grp.	1	1	4
Tipula		-99	
Tribelos	1		1
<b>EPHEMEROPTERA</b>			
Acerpenna	1	2	1
Caenis latipennis	182	242	78
Leptophlebia	4	8	
Stenonema terminatum	1		
<b>HEMIPTERA</b>			
Microvelia		1	
<b>LIMNOPHILA</b>			
Physella		-99	1
<b>MEGALOPTERA</b>			
Sialis		-99	
<b>ODONATA</b>			
Argia	1		1
Enallagma		1	
Gomphus	-99	-99	
Ischnura		-99	
Libellula	1	1	
Macromia	1		
Progomphus obscurus	5	1	
<b>PLECOPTERA</b>			
Perlesta	2	3	6
<b>TRICHOPTERA</b>			
Cheumatopsyche	1		1
Ironoquia	1		
Nectopsyche	1	3	
Ptilostomis		-99	-99
<b>TUBIFICIDA</b>			
Enchytraeidae	1	4	
Limnodrilus cervix	2		
Tubificidae	3		
<b>VENEROIDEA</b>			
Sphaeriidae	1	1	

**Aquid Invertebrate Database Bench Sheet Report****South Fabius R [0602607], Station #1, Sample Date: 4/13/2006 8:45:00 AM****CS = Coarse; NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>CS</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
<b>"HYDRACARINA"</b>				
Acarina		7	2	2
<b>AMPHIPODA</b>				
Hyaella azteca			12	4
<b>COLEOPTERA</b>				
Berosus	1	2	2	-99
Dubiraphia	2	6	18	3
Helichus lithophilus	3		4	
Macronychus glabratus		-99	3	10
Scirtidae			4	
Stenelmis	125	8	7	3
<b>DECAPODA</b>				
Orconectes luteus	1			
<b>DIPTERA</b>				
Ablabesmyia	2	13	38	5
Ceratopogoninae	3	2	4	2
Cladotanytarsus		2		
Corynoneura	1			
Cricotopus bicinctus	11	1	8	4
Cricotopus/Orthocladius	16	1	12	29
Cryptochironomus	10			
Cryptotendipes	1	12		1
Demicryptochironomus	1			
Dicrotendipes	12	1	8	102
Diptera				1
Dolichopodidae		-99		
Eukiefferiella	2			1
Glyptotendipes			1	1
Gonomyia	3			
Hydrobaenus	1			
Labrundinia			2	
Nanocladius		1	19	
Nilotanypus			1	
Nilothauma				1
Ormosia		1		
Parakiefferiella				2
Paralauterborniella		1		
Paratanytarsus		1	4	
Paratendipes		1		
Pericoma		2		

**Aquid Invertebrate Database Bench Sheet Report****South Fabius R [0602607], Station #1, Sample Date: 4/13/2006 8:45:00 AM****CS = Coarse; NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>CS</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Phaenopsectra		1		
Polypedilum convictum grp	21		4	2
Polypedilum halterale grp		2		2
Polypedilum illinoense grp			3	8
Polypedilum scalaenum grp				2
Procladius		6		
Pseudochironomus	1			
Pseudosmittia				4
Rheocricotopus	1			
Rheotanytarsus			5	1
Saetheria	2			
Simuliidae	26	1	10	3
Simulium	6		13	4
Stenochironomus				3
Stictochironomus	1	1		
Tabanus	1			
Tanytarsus	71	14	123	50
Thienemannimyia grp.	9		7	3
Tipula			-99	
Tvetenia bavarica grp	1			1
undescribed Empididae			2	
<b>EPHEMEROPTERA</b>				
Acentrella	12		5	3
Acerpenna	71		40	22
Baetisca lacustris	7	-99		5
Caenis latipennis	28	25	74	16
Hexagenia limbata		1		
Isonychia rufa	1			
Stenacron	10	1		3
Stenonema femoratum	12			-99
Stenonema pulchellum	28			2
Stenonema terminatum	3		1	
Tricorythodes	32		15	4
<b>HEMIPTERA</b>				
Trichocorixa	1	152	2	
<b>LIMNOPHILA</b>				
Fossaria	2	2		1
Physella		1	2	-99
<b>MESOGASTROPODA</b>				
Hydrobiidae		8	1	-99
<b>ODONATA</b>				

**Aquid Invertebrate Database Bench Sheet Report****South Fabius R [0602607], Station #1, Sample Date: 4/13/2006 8:45:00 AM****CS = Coarse; NF = Nonflow; RM = Rootmat; SG = Woody Debris; -99 = Presence**

<b>ORDER: TAXA</b>	<b>CS</b>	<b>NF</b>	<b>RM</b>	<b>SG</b>
Argia	1	-99	13	4
Basiaeschna janata			-99	-99
Calopteryx			1	
Coenagrionidae		-99		
Epicordulia			-99	
Gomphus		-99		
Hetaerina				-99
Libellula			2	
Macromia		-99	-99	
<b>PLECOPTERA</b>				
Hydroperla crosbyi	-99			
Isoperla	3			
Perlesta	26		3	1
<b>RHYNCHOBDELLIDA</b>				
Glossiphoniidae	-99			
<b>TRICHOPTERA</b>				
Cernotina	2		1	
Cheumatopsyche	3			
Chimarra	1			
Helicopsyche	1			
Hydroptila	2	1	2	
Isonychia				1
Nectopsyche		1	8	
Nyctiophylax				-99
Oecetis	8	3		1
Pycnopsyche			-99	
Triaenodes			1	
<b>TRICLADIDA</b>				
Planariidae		1	1	
<b>TUBIFICIDA</b>				
Aulodrilus		4		1
Enchytraeidae	2	3		2
Limnodrilus hoffmeisteri	1	3		1
Tubificidae	51	26		
<b>VENEROIDEA</b>				
Corbicula	4	1		
Sphaeriidae	2	2	1	